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N. C. AGRICULTURAL EXTENSION SERVICE

OF THE

STATE COLLEGE AND
STATE DEPARTMENT OF AGRICULTURE AND
U. S. DEPARTMENT OF AGRICULTURE, COOPERATING

B. W. KILGORE, Director

RALEIGH

NINTH ANNUAL REPORT

Fiscal Year Ending June 30, 1923
Statistical Report Year Ending December 1, 1923

DISTRIBUTED IN FURTHERANCE OF THE ACTS OF CONGRESS OF
MAY 8 AND JUNE 30, 1914

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LETTER OF SUBMITTAL

North Carolina Agricultural Extension Service
Office of the Director

Raleigh, N. C., January 1, 1924.

To His Excellency, Cameron Morrison,
Governor of North Carolina.

Sir:—I have the honor to submit herewith report of the operations of the North Carolina Agricultural Extension Service, conducted jointly by the North Carolina State College of Agriculture and Engineering and the North Carolina State Department of Agriculture, in coöperation with the Federal Department of Agriculture, for the year ended June 30, 1923. This work is under the immediate direction of the "Joint Committee for Agricultural Work" provided for in chapter 68 of the Public Laws of 1913, and the report is made in accordance with the requirements of the act of Congress approved May 8, 1914, and known as the Smith-Lever Act.

Very respectfully,

B. W. Kilgore

Director.

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C. R. HUDSON ..... State Agent, Negro Work
S. J. KIRBY ..... Assistant State Agent

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Northampton	Miss Mattie Lee Cooley	Jackson
Onslow	Miss Hattie May Morisey	Jacksonville
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NINTH ANNUAL REPORT

OF THE

North Carolina Agricultural Extension Service

For the Year Ending June 30, 1923

Being the Seventeenth Year of Extension Work in the State

B. W. Kilgore, *Director*
F. H. Jeter, *Editor*

In a general way the information contained in this report is for the calendar year 1923. The reports were made about December first and, except for that month, cover operations during the year. The fiscal report is for the year ending June 30, 1923.

The information given in the reports, however, is probably not as full as in past years, especially of the farm and home demonstration agents, due to the fact that these agents were struggling with a new report form, and some of the old-time "human interest" stories of other days were sacrificed to supply accurate data and figures demanded by a new day of more thorough organization and efficiency.

Two changes in administration of importance to agricultural extension work in North Carolina during 1923 were the resignation of President W. C. Riddick at the close of the college year in May, 1923, and the death of Major W. A. Graham, Commissioner, on December 24, 1923.

President Riddick was deeply interested in the success of agricultural extension. He was succeeded as president of the State College by Dr. E. C. Brooks, formerly State Superintendent of Public Instruction, and with a long record of educational activity behind him.

Major Graham died after serving for fifteen years as Commissioner of Agriculture. He lived to see the Department and many of the extension workers housed in a magnificent new building. Had he lived until December 26, he would have been 84 years of age. Major Graham was devoted to the interests of the farmers of North Carolina and took great pride in the agricultural advancement of his native State. Governor Cameron Morrison appointed W. A. Graham, Jr., as commissioner to serve the unexpired term. The new commissioner was for many years the confidential adviser of his father, and came to the office well acquainted with the work of the Department.

It is generally conceded that 1923 was a prosperous year for a majority of farmers in North Carolina. There were good crops of

both tobacco and cotton, and good prices received in the main for these two crops. In other sections, other crops were utilized to bring in some money, and, in consequence, North Carolina prospered during 1923. Results, of course, do not simply happen. It is true that the year 1923 was fine for cotton in North Carolina, and that the crop was not seriously harmed by the boll weevil; but it is equally true that without some impelling motive this return to prosperity would not have been so general throughout the State. It is believed that the extension workers of the State College and Department of Agriculture rendered some service in bringing about this improved agricultural condition.

It is not egotistic to make this statement. Those who had occasion to travel extensively over the State last year brought back reports that the people were growing more food and feed crops than ever before. The Agricultural Extension Service put on a "Live-at-Home" campaign early last spring which had for its purpose this very result.

The report was also brought in, and was verified by other departments of the State Government, that North Carolina lost little colored labor during the year. The Agricultural Extension Service has for years given work with negro farmers an important place in its program. In 1923 this activity received more attention than ever before, and particularly was an effort made to have these negroes live at home. An intensive garden campaign was put on with them, during which all other phases of an independent farming program were promoted. The negro farmers of North Carolina realize today that the agricultural authorities are trying to serve them.

The report is heard, too, that the farm women are purchasing those modern conveniences and even luxuries which they have long wanted. It may be that good crops of cotton and tobacco with good prices for these have helped to bring about this condition; but the home agents can point with pride to the fact that the curb or bazaar markets established under their direction have converted surplus produce into dollars and have established better relations between the rural woman and her urban sister.

Various agencies and institutions are claiming credit for the wonderful development now going on in North Carolina. It is the policy of the extension workers to let those who will claim this credit, but it cannot be denied that the constructive program for agricultural development that has been fostered in North Carolina through a long period of years, and carried to the farmers by as consecrated a band of men and women as can be found, has had its effect. North Carolina, as a state, has begun to realize on the investment made in past years, and the interest proved very comforting at a time when other southern states were suffering from the combined effects of a less diversified agriculture, the boll weevil, and low prices for farm crops.

The cotton boll weevil continues to be one of the important problems of North Carolina agriculture. This is true because the pest affects such a tremendous portion of the State. Because of the boll weevil, it was a necessity that the live-at-home program be urged on our people. In the eastern part of the State, where cotton has been the predominating crop, the farmers wanted information about how to grow cotton under weevil conditions. They also wanted information about how to grow crops other than cotton, how to market these crops, and how to make a start with livestock. In the western section of the State, because of the boll weevil in the old cotton belt, tobacco farmers who had never grown cotton before made plans to put in the crop. They wanted information that would insure them of making a success with a new crop. Experienced cotton farmers wanted better seed and better cultural methods outlined. To meet this demand the Agricultural Extension Service workers centered their attention on the boll weevil and related all other activities so that they would have a direct bearing on this problem.

Fortunately, 1923 was bad for the boll weevil and excellent for cotton production. This, then, together with the greater production of food and feed crops, the successful operation of the coöperative marketing associations and the better prices prevailing, made the year 1923 one of the best years for farming that the State has enjoyed recently.

In the past, statistical summaries have been a feature of each annual report. By this time, however, the activities of the agricultural workers have become fairly fixed in the minds of the people with whom they work. While the farm and home agents and the specialists have been engaged in lines of work similar to those of past years, accumulated experience and better organization of activities have made it possible to carry on the same lines of work and to add other features made necessary by the requirements of a constantly improving system of agriculture.

One thing that stands out this year is the fact that the agricultural workers have worked through organizations or rural people more than in the past. The farm demonstration agents reporting on their activities with white farmers, negro farmers, and club boys and girls, show that the extension program has been coöperatively worked out between the agents and the people concerned in 811 communities. The home agents have secured these same results in 936 communities. There were 71 counties in which farm agents were employed last year and 54 in which there were women agents. Seven counties are ready for farm agents to be supplied as soon as funds are available, and three counties are awaiting the appointment of home agents.

Some of the other new features of extension work this year have been the developing of new money crops for the mountain section, demonstrations in growing cotton under boll weevil conditions, the more

extended development of better seed cotton by communities, increased interest in farm forestry, demonstrations in soil improvement and the use of lime, extension work with tobacco farmers, more attention to negro farmers, farm tours and renewed interest in agricultural club work.

With the women some of the new things proving to be of great value have been the beautification of the home and farmstead, attention to household management under which some successful kitchen campaigns have been conducted, more interest in food preparation and studies of nutrition problems. Bread campaigns promoted as county-wide projects have been very successful and valuable in this food preparation work.

Farmers in the mountain section of North Carolina have always produced their food and feed crops, but have been at a loss to find crops that could be exchanged for ready money. The extension workers have helped to promote the work of the Farmers' Federation with headquarters at Asheville, which has done much to aid the growers of that section to market their surplus produce coöperatively and to sell in large lots on distant markets. The cabbage growers of the northwestern part of the State have had a market developed for their cabbage by the organization of a coöperative sauerkraut factory and the development of a market for mountain-grown seed Irish potatoes among the early growers of the tidewater section. Many of the county agents have conducted demonstrations in boll weevil control during the year. These have been in addition to the plat work done by the workers from the Division of Entomology. While the boll weevil was not so severe in North Carolina last year, and in many cases farmers who had bought poison found no occasion to use it, still such demonstrations as were carried out showed that dusting cotton with calcium arsenate according to Government recommendations was successful where the infestation was great enough to warrant the dusting.

Commendable progress is also recorded in the greater use of better cotton seed by farmers. This has been due largely to the community seed improvement work promoted by the agronomy workers for years past. The use of such varieties as the Cleveland Big Boll, Mexican Big Boll, and others which show up best under all conditions in this State, has been extended, and the people seem to realize that it is best to use one or two good varieties so that there may be greater uniformity in the staple and quality of lint produced.

With the better roads now in existence over North Carolina, the agents have found it possible to organize large groups of farmers and take them on visits to other sections of the State or adjoining states where these visitors may see some special phase of successful farming. A number of tours were made last year under the supervision of the agents, and both adults and club members were given the benefit of this new work. Club encampments reached their climax last

year, about fifty being held. This one thing has done much to renew the life and virility of club work, and many agents have added a club program to their projects for the coming year.

North Carolina is justly proud of the progress being made by her negro farmers, and the extension workers are aiding in this program with all means at their disposal. At least three State-wide campaigns were put on among the negroes last year in which the white agents helped the local colored agents and also did work with the negro farmers in counties where there were no local agents employed. The first of these was a "Live-At-Home" campaign put on around the growing of a garden containing at least six vegetables. This was unusually successful.

Of no less importance was the work done over the State in soil improvement demonstrations. Thirty-two field demonstrations in the use of lime and legumes in improving the soil in 18 counties attracted much attention last year. The growing of lespedeza in Union County is completely changing the farming practices of that county, and is causing the old worn-out soils to give better returns in increased yields. The use of lespedeza is spreading to other counties. The same is true of the use of vetch in some of the counties of the sandhill section.

The agents have accomplished the usual amount of work in bringing in better livestock, in holding fairs, helping with new farm buildings, distributing bulletins and circulars, pruning and spraying orchards, holding extension meetings, helping to tile-drain and terrace land, promoting club work with corn, pigs, poultry, clothing, food preservation, and other club activities and they have done much work in promoting coöperative effort in buying, selling, and community betterment.

CHANGES IN STAFF

The changes in staff since the last report include the following:

Resignations.—E. D. Bowditch, assistant horticulturist, transferred to county agent work in Mitchell County; F. E. McCall, landscape garden specialist; F. T. Peden, assistant in beef cattle work; George Evans, sheep extension specialist, transferred to county agent work in Davie County; J. M. Watts, assistant in swine extension; Stanley Combs, assistant in dairy farming; J. M. Workman, warehouse construction; T. D. McLean, district agent; C. C. Proffitt, district agent. There have also been a number of transfers and resignations in county agent work.

Appointments.—Robert Schmidt, vegetable specialist; W. A. Radspinner, pomologist; H. R. Niswonger, assistant horticulturist; H. Neal Blair, kraut specialist; G. P. Williams, sheep extension; W. L. Clevenger, dairy manufacturing specialist; J. W. Goodman, Jr., district agent; W. B. Pace, district agent; H. A. McGee, specialist in tobacco culture; and A. V. Anderson, specialist in rural credits.

COOPERATION WITH OTHER INSTITUTIONS AND AGENCIES

It is the policy of the Agricultural Extension Service to coöperate as far as possible with the various other education institutions, commercial organizations, business men and bankers who are interested in promoting the advancement of educational and agricultural conditions in North Carolina. Excellent working relations are had by the Extension Service with the North Carolina College for Women, the Negro Agricultural and Technical College, Peace Institute, the State Department of Education, and other educational institutions in the State.

Of all the agencies helping in the agricultural advancement of North Carolina, probably none is rendering greater service to the Extension Service than the press. The weekly papers continue to give of their space willingly for the dissemination of information about better farming methods, while the Associated Press has handled a large amount of news going to the daily papers. A number of the larger dailies made a regular practice of carrying some agricultural information on Monday morning, and at least three of them have established regular farm pages.

The extension workers have also continued to receive the hearty support of banks, chambers of commerce, and civic organizations in helping to promote club work, community fairs, and other forms of extension activity. The development departments of the railroads and the Eastern Carolina Chamber of Commerce have also worked in close coöperation with the extension division.

ASSISTANT DIRECTOR

A large amount of administrative work in connection with the county home and farm agents is handled through the Assistant Director of Extension. An effort has been made during the past year to improve the records kept in county agents' offices, and good results have been secured in this line of activity. The agents generally are now following better methods of office work and are preparing in advance a definite program of work to be followed during the year. Some time has also been given to the study of records in the offices of the district agents, and a few changes have been brought about that make them more efficient.

During the year the assistant director visited many of the farm agents' and district agents' offices and also attended a number of the meetings and demonstrations held by these workers. The office assisted in supplying judges and promoting the organization of various fairs over the State, rendering such assistance to a total of 229 fairs.

The distribution of Sodatol was also handled by this office, and during the last three months of the year over 300,000 pounds was distributed in eighteen counties with a saving of about $45,000, taking into consideration the price asked for similar explosives by commercial concerns.

FARM DEMONSTRATION

In this report the results of farm demonstration work are given under three headings: (1) the report of the county agents, (2) the report of negro local agents, and (3) the report on boys' club work. All three phases of this work belong to the farm demonstration division, with the administrative duties under the direction of five district agents for the work with white farmers, and one district agent for the work with colored farmers. State Agent C. R. Hudson and Assistant Director J. M. Gray have been responsible for the administrative duties of this division at the college.

Last year 71 of the 100 counties had county agents at work, while seven additional counties are now awaiting the appointment of agents. With negroes, 18 counties are now supplied with local negro agents under the direction of L. E. Hall, who was transferred from Chadbourn to Raleigh so as to be located in a more central section of the State. There have been a number of changes among the county agents during the year. Most of the vacancies have been filled with efficient men, and the work of this division is progressing satisfactorily.

At the beginning of the 1923 a definite program for controlling boll weevil in the cotton section and for a live-at-home campaign over the entire State was planned and conducted by the field workers. That these campaigns were successful is evidenced by the fact that the State produced the biggest cotton crop in its history and that the largest amount of food and feed crops ever grown in the counties affected were produced.

The agents also assisted in planning for new money crops in those sections of the State where there had been a lack of such crops heretofore. They rendered valuable service in promoting small coöperative enterprises in buying, selling, and the handling of farm products. During the year the agents inaugurated a program of soil improvement that has found ready response on the part of farmers. Reports from various sections of the State show that our farmers are now more interested than ever in the further improvement of their soils.

Much work was done in the promotion of farm tours to various sections of this State and to surrounding states and by the holding of club encampments and rallies. It may be said that club work was infused with new life during the year, and the young people all over the State are now taking a more active part in this work.

Work with negroes also received new impetus during the year, especially by the holding of the garden campaign in the spring, a campaign for the planting of summer legumes, and a third campaign for the planting of winter cover crops, mainly for soil fertility purposes. Of these three campaigns, the garden campaign based on the live-at-home idea was probably one of the most successful of its kind ever attempted

in North Carolina. It is felt by the extension workers that, due to the work done with negro farmers last year, the State probably lost less of its negro labor during the recent migrations than any other state in the South. Of course, there were other factors entering into the holding of this labor in the State, such as the big road-building program and the industrial expansion; but the fact remains that there was less loss of labor from the farms of North Carolina than from any of the other southeastern states.

About six additional counties have now appropriated money for putting in local agents to work with the negro farmers, and it is expected soon that there will be local financial support in every county where this phase of work is conducted.

Outside of the counties where negro agents are at work, J. D. Wray, assistant in club work, has devoted his time to the organizing and conducting of club work with negro boys and girls. The counties selected for his activities have been those with a large percentage of negro farmers, and he has carried on his work to advantage through negro club organizations.

As heretofore, the boll weevil program has been one of the biggest factors in extension work during the year. Practically the entire effort of the agents in cotton-growing counties has been devoted to a solution of this problem. A number of demonstrations in growing cotton under boll weevil conditions have been inaugurated and carried to successful completion. The agents have also been busy in the promotion of better pastures, the growing of hay crops and the importation of pure-bred livestock and poultry. Some attention has been given to the tenant farmers in aiding then to become landowners. Where there are no money crops the agents have assisted in developing such crops. A notable example of this has been the production of seed Irish potatoes in the mountains for use by the early growers in the tidewater section, and the development of a market for the summer vegetables grown in the mountain section. The establishment of a coöperative kraut factory in Watauga County has been an outstanding feature in this development of a market for summer vegetables.

The records show that the farm agents have carried on an extension program in 811 communities of the State. They have secured the voluntary coöperation of 1,234 men, 688 women, 424 boys, and 93 girls to act as local leaders in forwarding this extension program; they have organized clubs to carry on extension work, 221 of these clubs being with men and having a membership of 4,874; 105 boys' clubs having been organized with 2,471 members; 55 women's clubs with 629 members; 25 girls' clubs with 2,471 members; 312 boys' and girls' clubs with 8,436 members; and 388 community clubs with nearly 17,000 members, have been organized during the year.

The reports show that the farm agents have made 59,486 farm visits to 28,437 farms. They have visited in the homes of over 14,000 farmers and have had nearly 100,000 calls at the office. The usual number of demonstrations, meetings, farmers' institutes, short courses, and club encampments were held during the year to present some phase of extension work.

In carrying out their program, the results show that a total of 6,531 communities have participated this year, while 3,925 meetings have been held at demonstrations at which 120,912 people have been in attendance. At the other meetings relating to the various projects, 11,513 of which were held, there was an attendance of 271,433 people. As in the past, the agents have continued their demonstrations on different farms over the State. One of the big features of this work has been with soils, and the records show that about 6,000 demonstrations were started and over half of these completed. The number of acres involved in such demonstrations was 26,437, and 15,137 farms were influenced to change their practices relative to soil management. A number of demonstrations were carried on with cereals, especially corn; a larger number than ever with legumes and forage crops, and with special crops such as potatoes, cotton, and tobacco.

Extension work with tobacco was a new feature this year, and has been well received by the tobacco growers. Another new feature has been some demonstrations with farm forests. The records show that in this new line of work at least 36 demonstrations were put on, 13 of which were completed, covering a total area of 244 acres. About thirty farms were influenced in this work.

Good results were secured during the year with the demonstrations with dairy cattle, beef cattle, sheep, swine, and poultry. Especially popular has been the work with swine and poultry. There were 665 demonstrations with swine and 1,156 with poultry. More demonstrations with poultry were completed than were planned for at the beginning of the year. The records show that 70 farms were influenced to do better work with horses and mules; 1,685 with dairy cattle; 247 with beef cattle; 135 with sheep; 2,758 with swine, and 3,847 with poultry. There were also 10 dairy cattle associations or clubs organized during the year, 5 swine clubs, and 26 poultry clubs. One of the results of this work has been the better feeding of the animals belonging to the farmers in these clubs.

Farmers of North Carolina are now taking more interest in better farm buildings and other phases of rural engineering. The agents report that about 10,000 acres of land were drained under their supervision this year, and nearly 14,000 farms constructed terraces. New farm buildings were constructed or old ones remodeled to the amount of nearly 7,000, while a number of water systems, heating systems, and lighting systems were added under the direction of the workers engaged.

Results show in agricultural economics that about 6,599 members have joined coöperative marketing associations upon the suggestion or counsel of extension workers. These members have purchased supplies valued at $264,595, at a saving of $19,022. The members have sold products valued at $606,411, making a profit on the transaction of $106,532. At the present time in the various counties where the extension service operates there are now 125 coöperative marketing associations with 27,723 members. In addition to these coöperative associations, nearly 4,000 farmers have been assisted by the extension service in buying and selling through other channels.

It is felt that these few figures will give some idea as to the various phases of work in which the farm agents have been engaged and will show some of the results that they have accomplished. Many outstanding pieces of work in each county could be selected as examples of the work done; but as these are given in the narrative report which follows, it is unnecessary to direct attention to them now.

HOME DEMONSTRATION

During the past year home demonstration work was carried on in 54 counties of the State. These counties are divided into four districts, 15 being in the mountain and piedmont, 14 in the central, 13 in the eastern, and 12 in the tidewater. This is an increase of one county over 1922, though three additional counties have made appropriations for the work and are ready to support agents as soon as State funds are available. With negroes, home work is carried on in six counties.

One of the features of home demonstration work this year has been the fact that the agents have worked more through organizations than in the past. The records show that there were 620 girls' clubs with a membership of 11,273, and 581 women's clubs with a membership of 11,832. Of this total membership of about 23,000, nearly 15,000 women and girls completed the work as outlined for them by the home demonstration agents. In addition to these clubs with the women and girls, the home agents did work with 156 community clubs, comprising a membership of 7,166 men, women, and children.

One of the good features about home demonstration work last year was the number of county councils formed to support the home agent. The results show that there are 12 such county councils in the tidewater district, 10 in the eastern district, 19 in the central district, and 13 in the mountain and piedmont district, making a total of 45 supporting bodies in the 54 organized counties. The organization has been further carried on by the formation of a State Federation of Home Demonstration Clubs consisting of representatives from the 45 county councils. When first formed in 1920, only 11 counties were represented. Last year there were two accredited delegates from each of the 45 coun-

ties, and, in all, 300 rural women gathered at the meeting of this federation at the college in August.

Home demonstration work is conducted on a four-year plan, and lesson sheets or bulletins covering the four years of work in all of the projects have been prepared for use of all club members. Any club member completing the work as outlined in any one project is given a certificate, and when certificates are secured for work in six projects a diploma is then awarded this club member. Definite requirements are made before any certificate is issued.

The home demonstration workers last year held one of the most successful short courses for club girls that has yet been held in the State. One hundred and seventy-five girls, representing 30 counties, were given a week's intensive study in jelly making, canning, clothing and the testing of textiles, at Peace Institute. The girls were trained for future leaders in the various counties.

The home agents report that they have worked out a coöperative extension program in 936 communities of the State. They visited 11,387 homes and had 43,319 calls made on them at the office. At the same time they wrote 52,494 individual letters in answer to inquiries from farm women. The agents also held a large number of demonstration meetings, extension schools and institutes. Coöperating with the farm agents, they held 48 club encampments and rallies at which over 10,000 boys, girls, and adults were present.

As usual, the important work of the Division has had to do with foods, covering the preparation, nutrition, and conservation of foods. The reports show that this food work was a part of the work in each of the 54 organized counties, and results from these clubs were reported by 8,682 women and 10,385 girls. In food preparation, work was done in bread making, meal planning, and in school lunches. Especially was good work done in child feeding and care, as 465 demonstrations were completed by the women in this work. The food work was given great prominence in 1923 by a number of county-wide "Better Bread" campaigns. In these campaigns the home agent, together with such voluntary help as she could secure from trained women in the county, visited the various schools of the county, giving demonstrations in the making of better biscuit. After making these demonstrations, competitions were held at each school, followed by township and finally county contests. On the occasion of the county contest a complete program covering all phases of food preparation was held at the county-seat and prizes awarded to the successful competitors. During the year the importance of milk in the diet was impressed by additional campaigns. During 1923 "Milk for Health" campaigns were held in four counties, and included one city and 64 rural communities; 53,121 people were reached in these campaigns.

In food preservation, 45 counties report a program of instruction in this work. As a result, 795,278 containers valued at $392,064.09 were filled with the various canned materials, preserves, pickles, and other products.

Clothing work was also stressed by the home agents during 1923. This phase of work was conducted in 45 counties, with 3,852 women and 5,175 girls completing their reports on the project. A number of schools to give information about clothing were held in various counties. Under household management and home furnishing, the agents put on a new feature of demonstration work in the home beautification idea. These home beautification campaigns included better kitchens, facts about interior decoration and the beautification of the home grounds and farmsteads. In several counties the kitchen campaign was one of the most important and far-reaching features of home demonstration work.

Home health and sanitation were not neglected, and much improvement was made in a number of farm homes by this activity. Beautification of the home and school grounds was undertaken in 16 counties during the year, and 1,480 club members report that they planted their grounds according to a definite plan as a result of this work. Under the supervision of the Division of Horticulture native shrubs, trees, and flowers were used as far as possible, and 3,198 club members report using these to beautify their grounds. The family garden has been another feature of this work during the year. Thirty-two home agents report that they carried on such work, and that 74,360 bushels of garden products valued at over $84,000 were grown by the club members. The home dairy also continued to be a popular feature of home demonstration work. Home agents in 28 counties undertook this project last year with 1,761 women and 170 girls completing the work as outlined. Thirty-eight counties carried on the poultry club project. The total value of all poultry and poultry products sold and used at home by members reached the remarkable sum of $385,557. The clubs among the women and girls have been responsible for the formation of marketing associations for the development of sales of surplus poultry and eggs at curb markets, and for the bringing in and local development of better breeding stock. A number of the agents find that this is one of the most popular projects in all their home demonstration activities and that its promotion has been the means of supplying a number of farm women with surplus cash.

The organization and promotion of curb or bazaar and stall markets for the sale of surplus produce has been another feature of the work by home demonstration workers. The reports show that 13 curb and bazaar markets and 11 stall markets were conducted by the home demonstration workers in 24 counties. In 1922 only nine such markets were in operation. These markets have made it possible for the rural

woman to supply herself with comforts and luxuries that she could never obtain without them. In one county $9,246 worth of products were sold by the club women during the year.

The home demonstration workers arrange to have at least two county-wide campaigns each year. To that end, 38 counties held such campaigns in 1923. These had to do with home improvement, milk for health, better poultry, better bread, school lunches, baby welfare, rat extermination, home gardens, and other phases of work. The home agents also helped in the organizing and judging at 117 community and 43 county fairs. They assisted in club encampments in 31 counties and the white workers gave help and encouragement to the colored women whenever time permitted.

AGRONOMY

Some of the big features of extension work in agronomy have been the maintaining or building of soil fertility in the State, the improving of varieties of crops, and the better knowledge of fertilizers. A new feature added last year was extension work in growing tobacco and activity in connection with the growing of cotton under boll weevil conditions. The reports of the extension workers in this division show that 32 demonstrations in soil fertility, lime and pastures were conducted last year; 12 demonstrations in cotton-seed improvement; 19 in improving the varieties of seeds of small grains and corn; and 8 in the improvement of soybean varieties.

The agronomist in soils held 14 meetings, at which there were 645 people, and examined over 52 different soils as a part of his extension activity during the year. The division also gave particular attention to advising farmers as to the right kind of fertilizers to use on their soils for the various crops. This division has not hesitated to recommend the formulas that would give the greatest yields of crops per acre at the lowest cost, while at the same time the fertility of the soil was maintained or built up.

With field crops the division has coöperated with the county agents, the agricultural high schools, and the organized communities in the advancement of better field-crop practices, giving much attention to boll weevil control, the growing of pastures and feed crops, and the marketing of these crops. Corn variety demonstrations by communites were started last year in 17 communities in 12 counties. Small-grain demonstrations were conducted in 3 communities and 6 additional communities were visited to inspect small grains being grown for seed. In this way an approved list of 3,800 bushels of wheat, 8,100 bushels of oats, and 5,600 bushels of Abruzzi rye were listed and distributed to county agents and growers. Definite results are being secured in the community crop improvement work, especially in Union, Sampson, Edgecombe, Halifax, and Chowan counties. In Union County about 178 cotton growers were supplied with 2,000 bushels of pedigreed Mex-

ican Big Boll seed, and 72 growers made reports of their results. From these farmers 5,000 bushels of seed were reported as being kept pure at the gin, and many of the farmers stated that their entire lot had been spoken for by their neighbors. About 400 acres of pure cotton seed were planted around the Salemburg High School in Sampson County, and the entire lot of seed harvested from these acres was absorbed by the community.

In Edgecombe County, the Edgecombe Seed Breeders' Association is making good progress and has supplied a large amount of pure pedigreed seed to various farmers over the State.

Extension work in soils and crops is largely built around improving the soil by the addition of organic matter, and last year 173 farms were visited by the extension agronomist in the interest of this work; 94 farmers' meetings were held, with a total attendance of 2,502 farmers; 32 field demonstrations are in progress in 18 counties, showing the value of lime in growing legumes, demonstrating that when the legumes were turned under the yield from the crop following was increased. It is now generally recognized that the extension work done with soybeans years ago and carried on up until the present time is beginning to bear results. North Carolina farmers in 1923 planted over 200,000 acres to soybeans, using the crops for seed production, for hay, and for soil improvement.

In the new phase of extension work with tobacco, H. A. McGee, as extension specialist, has carried on extension work in twenty counties, mainly in the new tobacco belt. The Division of Agronomy is cooperating with the various other divisions of the Experiment Station and Extension Service in helping to give out sound ideas as to growing of cotton under boll weevil conditions and the growing of food and feed crops in a safe farming program. In fact, during the past year the division devoted much of its attention to this matter, and it is felt that the farmers of North Carolina are probably better prepared to meet the attack of the boll weevil than were those of any southern state.

ANIMAL INDUSTRY

As in past years, extension work in animal industry has been conducted with dairy cattle, beef cattle, swine, sheep, and poultry. One of the big phases of work in dairy extension during 1923 has been in teaching the principles of better feeding of dairy cattle. It is believed that by proper feeding the average production of the North Carolina dairy cow can be doubled, and that this would put the dairy industry of the State on a more profitable basis. For that reason the office has spent a large part of its time in promoting the growing and feeding of home-grown feedstuffs. A State-wide campaign on feeding has been carried on during the entire year. As a definite result of this work there was one herd in the central section of the State which was losing

around $100 per month. After studying this herd the dairy extension workers made some recommendations in changing the cattle, selling old ones and buying new cows, and in giving new grain mixtures, which alone resulted in a saving of about $10 a month. This herd is now making money where it was losing at least $100 per month.

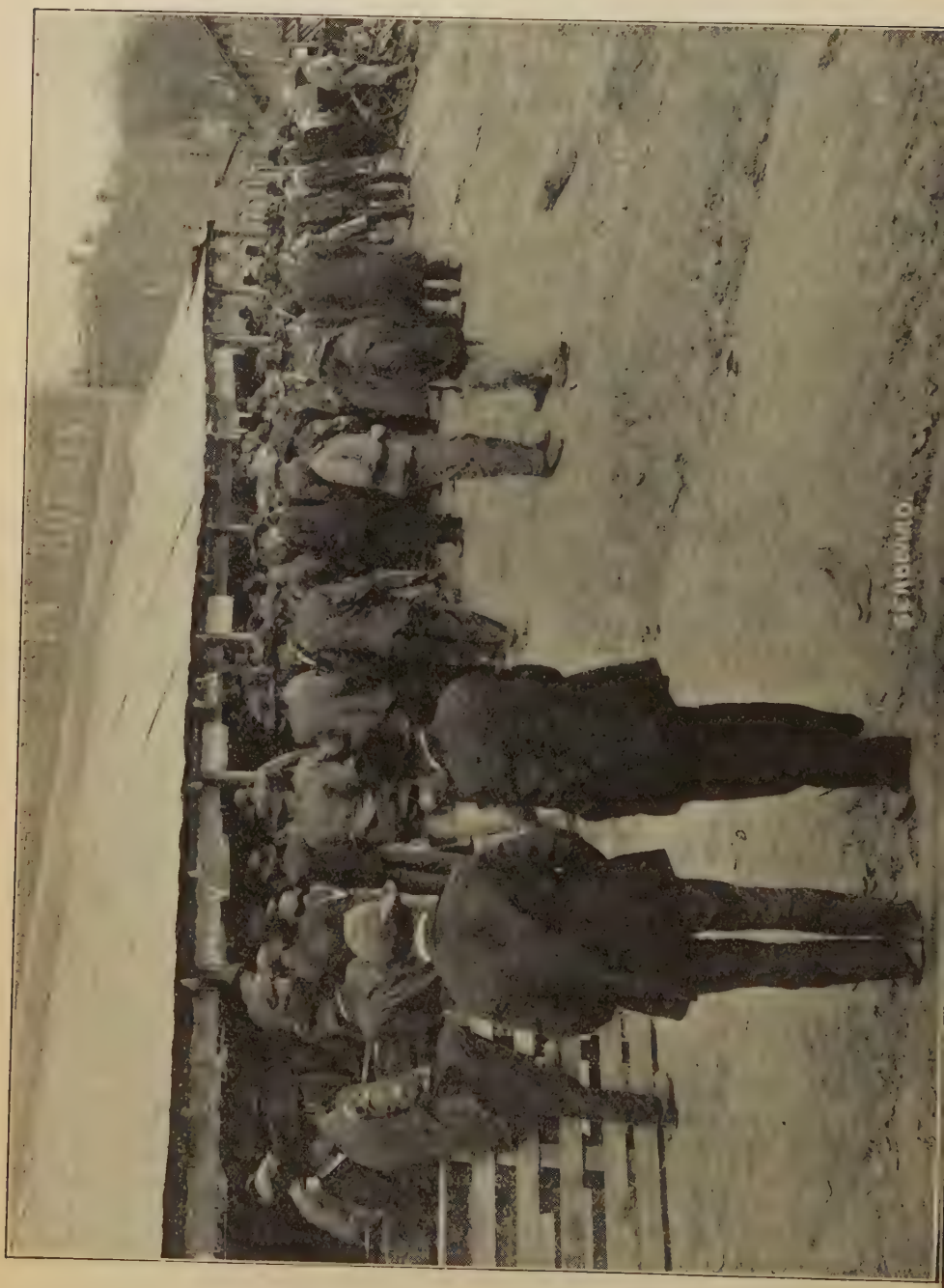
Work in promoting bull associations was practically discontinued, though sixteen pure-bred animals were placed by the dairy extension men during the year. The farm engineer largely handled all work in dairy construction; but, due to personal contact, a number of calls have come to the dairy extension men, so that they have helped in the construction of 11 barns, 23 silos, and 11 milk houses.

Due to an insufficient supply of milk, a large number of cheese factories were unable to operate last summer. For that reason F. R. Farnham was transferred to dairy production work in this section. He has already placed over 48 cows and 4 pure-bred bulls in the cheese factory territory. A cheesemakers' short course was held at Boone for the purpose of giving practical and technical instruction in the handling of milk and manufacturing of cheese. A beginning in the manufacture of Swiss cheese was made. Six of these cheese were manufactured and sold at an average of 36½ cents a pound. The total returns were $205.36 as compared with $97.95 received for a similar amount of Cheddar cheese.

The dairy extension office held a total of 195 meetings, including dairy schools and general meetings, at which nearly 23,000 people were in attendance. They have held a number of different sales and brought in several pure-bred animals. The dairy extension office has also worked with the home demonstration workers in several campaigns to promote the greater utilization of milk, and during the year they put on exhibits and demonstrations at the fairs. W. L. Clevenger was added to this office in August to give his attention to the creameries of the State. He has already been able to render excellent assistance in some of the manufacturing problems of the various creameries. During the year 25 farmers have carried their cows on official test under the direction of this office.

Work in beef cattle extension has not received the attention during the past three years that it should have, due to the fact that the division has been without the services of a beef cattle extension worker. However, Mr. Curtis has given as much time as possible to the work, has helped in the promotion of beef cattle sales, the making of demonstrations in beef cattle feeding, the formation of calf clubs, and in exhibits at fairs. Several successful coöperative sales of beef cattle were held, with the one at Spruce Pine being outstanding. On this occasion over 600 cattle were sold at good prices.

Swine extension continues to be one of the popular phases of livestock extension work. During the first part of 1923, sixty-two demon-



strations were conducted in feeding swine under the direction of twenty county agents. A total of 646 hogs were used in these demonstrations, and because the owners followed the methods of feeding advocated by the swine extension office, an average of $1.54 was received for each bushel of corn marketed through the hogs. It has been definitely determined that greater success has followed this method in swine work than any other yet tried. Rather than to increase the number of swine on hand on the farms of the State, an effort has been made to feed these better and to market them at the proper time. A total of 116 demonstrations were started last year by the Swine Extension Division. These workers also attended 43 meetings, at which nearly 5,000 people were present.

Due to the resignation of George Evans to go into county agent work in Davie County, extension work with sheep suffered. However, G. P. Williams was secured at the beginning of the fiscal year and has carried on the work in a satisfactory way. Up until the time of his resignation Mr. Evans, using his sheep exhibit truck, had traveled 540 miles making demonstrations in the proper handling of sheep. He also helped the Division of Markets in selling coöperatively 40,000 pounds of wool through wool pools, receiving from 5 to 10 cents a pound above the price offered by country buyers. Mr. Williams has continued sheep extension work much along the same lines as that conducted by Mr. Evans. During the year he graded over 19,000 pounds of wool, held 9 wool pools, conducted 21 demonstrations with sheep, and held 9 meetings.

Half Monitor Poultry House for 300 Hens Built at Swannanoa, N. C.

Poultry extension work is conducted along the lines of standardization of farm flocks, the coöperative buying and selling of poultry and

poultry products, better feeding of poultry, the building of better farm houses and coops, the better breeding of birds, and the control of disease. Practically all of this work is conducted in coöperation with the home demonstration agents, and has been very successful during the past year. Reports show that the poultry specialists visited 574 farms last year, held 1,043 demonstrations and 418 meetings. At these meetings 26,511 people were in attendance. Poultry club members showed 281 birds at the various fairs and won $1,342 in cash prizes.

Some of the significant things about poultry club work have been the increase in the number of poultry houses built or remodeled, the increased interest in culling, and the fact that growers have taken advantage of the importance of hatching out early chicks so as to secure eggs early in the fall and winter when they are highest in price. Reports show that 45 new poultry houses have been built, 52 have been remodeled, 398 flocks embracing 3,711 birds were culled, 9 judging contests were held, 245 educational exhibits prepared, and 462 lectures on better poultry given. The boys and girls have continued to be a source of supply for pure-bred poultry and eggs, and have largely added to their incomes by this work.

ENTOMOLOGY

The Division of Entomology has only two workers specifically engaged in extension work. W. B. Mabee has charge of the extension activities in general entomology, while C. L. Sams is in charge of the work in connection with bee-keeping. Most of the time of Mr. Mabee has been given to studying methods of control of the cotton boll weevil. During the months of January to March of last year county-wide meetings were held in 28 cotton counties. Mr. Mabee personally attended 24 demonstrations and 35 meetings on this subject. The Division of Agronomy also coöperated in these meetings and helped to present proper cultural methods in growing cotton under boll weevil conditions. Following the county-wide meetings, Mr. Mabee was located at Dunn, in Harnett County, where he carried on demonstrations with farmers in dusting cotton for the control of the weevil. While located at Dunn, over 3,000 circular-letters were sent out to farmers in the infested territory and much important data secured about damage and methods of control.

It is felt, as a result of the extension work by this division, that the boll weevil situation in North Carolina is favorable at this time. The State has passed through the third season of severe injury, and while we have suffered a severe loss in a small area, the farmers have been sufficiently warned and prepared, so that the damage was not as great as expected. In addition to work with boll weevil, considerable correspondence was carried on about other insects, especially the Mexican bean beetle, which has become epidemic in the southwestern section of the State.

In bee-keeping, extension work has been done in 43 counties. Mr. Sams has held a total of 233 demonstrations and meetings, at which 2,407 were present, and has also assisted 2,761 bee-keepers during the year. As a result, bee-keepers who formerly used box hives are now changing to frame hives, and many of them are beginning to make a specialty of the work. Some growers who are already using frame hives are now learning to greatly increase their honey production by better methods of manipulation. One bee-keeper in Burke County states that as a result of demonstrations conducted in his apiaries both his profits and his pleasures have been increased. Some of his colonies are now averaging over 100 pounds of honey, while others not handled by the recommended methods average only 30 pounds.

Another bee-keeper in Brunswick County, who began the season of 1923 with 450 colonies, has built up his operations to where he now has 650 colonies and produces over twenty tons of honey during the year. These are examples of how good results are secured when the suggestions of the extension workers are followed.

HORTICULTURE

There is a growing demand for more extension work in horticulture. It has long been realized that the State presented possibilities in a horticultural way, and there is an increased demand on this division for information about all of the various fruit and vegetable crops. At the present time the most important commercial horticultural industries in the State are those of the sweet potato industry in the coastal plain and piedmont sections, the early Irish potato in the tidewater section, the apple industry in the mountain section, the late Irish potato in the same section, and the peach industry of the sandhills. From the home standpoint, the most important features are the home gardens, home orchards, and the beautification of the farmsteads.

The Division of Horticulture conducted a number of general demonstrations in pruning and spraying of orchards in coöperation with the county agents. There were also carried on management demonstrations in both commercial and home orchards. These are continued through a period of three years with accurate records kept on cost and effectiveness of treatment. Demonstrations with sweet potatoes have to do with giving information about varieties, methods of production, harvesting, curing, and storage. With Irish potatoes it has been the organizing of an association of growers in western North Carolina, together with a certification service of pure seed. A number of demonstrations in the early potato sections of Eastern Carolina have been conducted to show the value of using mountain-grown seed as compared with seed secured from Maine. With cabbages, the work consisted of a local association of cabbage growers being formed, followed by the construction of a sauerkraut factory for the marketing of these cabbages.

In the home work the division has also helped to feature the handling of home orchards, the pruning and spraying of the trees, and promotion of the home garden. Beautification of the farmstead and home grounds has also been an important feature of this work. The statistical summary shows that the workers of this division conducted 645 demonstrations during the past year, held 274 meetings where there was a total attendance of nearly 20,000 interested people. The division is carrying on a number of definite projects and demonstrations in the management of the apple orchard as a part of its field work. These demonstrations have proved that the proper fertilization, pruning and spraying and handling of the trees will pay in increased yields of marketable fruit.

Extension work in sweet potatoes is one of the outstanding pieces of work of the division. Local associations of sweet potato growers have been organized, and in coöperation with the division of markets have been federated into central selling agencies.

The work with Irish potatoes has been under three heads—(1) the development of a seed growers' coöperative association in the mountains of the western part of the State; (2) the development of an inspection service for these seed produced, and (3) the demonstration of the comparative value of these seed with those from Maine for use in Eastern Carolina. Nearly 300 growers are now members of the association and three field inspections and one bin inspection are now given to fields entered for certified seed. Nearly two hundred fields were involved. The division has conducted 18 demonstrations in Eastern Carolina, which showed that seed from the western part of the State were equally as good or better, both in quality and yield, than those secured from Maine.

Ninety cabbage growers have been organized into an association for the construction of a kraut factory in western North Carolina. Three hundred and fifty tons of cabbage were delivered to the association, 120 tons of which were sold fresh and 230 tons made into kraut. This cabbage was sold above the market price.

Work with the home garden continued to be one of the important features of work of the division. Last year the extension workers put on 163 demonstrations in carrying out this work. During the past year plans have been prepared by the division for the beautification of 80 school grounds, 79 homes, 28 churches, 1 community park, 2 cemeteries, 7 courthouse grounds, and 1 town community center. The plan is to follow up these demonstrations for two successive years, so that, as far as possible, the plantings and arrangements may actually become accomplished facts. In coöperation with the Division of Home Demonstration, planting bees and arbor days were arranged in sixteen communities.

MARKETS AND RURAL ORGANIZATION

During the year 1923 workers in the Division of Markets reported that they classed approximately 138,000 bales of cotton. Since the organization of the North Carolina Coöperative Cotton Growers' Association most of the cotton classed by the Division of Markets has been done in coöperation with this organization, where eight classers and five helpers are used to keep up with the work in the rush season. The division maintained, however, two branch offices. Before the resignation of the grader at Fayetteville, 3,500 bales had been classed, and at New Bern approximately 2,500 were classed. Of the total, 138,000 bales, about 120,000 were classed for members of the cotton association.

Work in livestock marketing was practically at a standstill until the return of V. W. Lewis, in October. Since that time attention has been given to the marketing of hogs, lambs, wool, cattle, poultry and eggs. Farmers of the State have become much interested in the marketing of hogs through the work done by the swine extension specialist and the livestock marketing specialist. An effort is also being made to popularize the growing of lambs for the early spring market. This could be capitalized by the use of better rams and the grazing of winter cover crops.

Farmers coöperating to handle their wool in country pools have received from 45 to 50 cents per pound for the best grade. The coöperative marketing of eggs is one of the most recent projects encouraged by the division. The Cleveland County Coöperative Egg Association recently began business with 5,500 hens under contract for one year. The owners of these hens are shipping from ten to fifteen cases of eggs weekly.

The division began this year, for the first time, the point-of-origin inspection of peaches with the sandhill growers. This work paid for itself through the inspection fees collected and proved to be very popular with the growers in the peach association. The division has also secured the leased wire telegraph service of the U. S. Department of Agriculture and is now able to give at once all information about markets and prices and any other general marketing information.

The curb markets promoted in coöperation with the Home Demonstration Division have proven to be unusually popular, as about 24 of these are now in active operation. The reports received from the county home and farm agents continue to form the basis of a weekly curb market report which gives valuable information as to the prices of farm products at the various marketing centers.

In the office of the agricultural statistican considerable information relative to crops is now available. The office is receiving over 14,000 reports as to the condition of crops within the State. The farm census work was also begun this year, with 68 counties making reports for every township. Sixty per cent of the land area of the State was enumerated in this farm census for 1923.

More attention is being given to credit unions since the appointment of A. V. Anderson, specialist in rural credits. There are at present 26 credit unions operating in the State. They are located in 11 counties in various parts of the State and have proved a wonderful work in the communities in which they have been located. Not only have they promoted thrift, but they have provided a means of securing legitimate credit. Five additional communities are now ready for the organization of unions.

PLANT PATHOLOGY

In plant pathology demonstrations have been held in Edgecombe, Lenoir, and Richmond counties to show the control of cotton wilt by the use of wilt-resistant varieties like the Dixie-Triumph. Twice as much cotton was received from the wilt-resistant varieties planted in these demonstrations as from the susceptible variety planted alongside on adjoining plots. Some work has also been done on the control of tomato wilt by using wilt-resistant plants originally obtained from the U. S. Department of Agriculture.

The division is working with the horticultural specialists to produce disease-free seed Irish potatoes in the mountain section of North Carolina, and approximately fifty growers of Watauga and 25 growers of Avery County have had their seed examined. The total yield from these fields was approximately 10,000 bushels.

The division has given some attention to the control of orchard diseases, especially apple scab in the western part of the State. They have also helped in making a plant-disease survey, securing data on the prevalence and injury produced by diseases of economic crops. Another line of work consists in identifying the diseases on plant specimens sent in to the office. This has required a large amount of time devoted to answering letters and writing timely articles about plant diseases.

FARM FORESTRY

Since the resignation of Harry B. Krausz in 1921 no farm forestry work has been undertaken by the Extension Service. During 1923, however, much general work has been undertaken. Forester H. M. Curran has coöperated with district and county agents in the interest of growing more and better timber on North Carolina farms. Several demonstrations have been put on with county agents, showing how typical areas may be thinned and cultural methods employed that would enable the owners to secure the maximum growth. The forester has made studies of forestry conditions in 4 counties and has visited 78 counties of the State in interesting the people in better care of their farm woodlands. It is estimated that the farms of North Carolina now have about 10,000,000 acres of forest, from which about $32,000,000 worth of forest products are produced; about $14,000,000 worth are used on the different farms and about $18,000,000 worth cut for sale. These

farm forests are one of the State's most important industrial assets, and it is hoped that a good program of work can be developed for the future.

FARM ENGINEERING

Work in farm engineering has covered three distinct projects. The first of these consists of assisting farmers in installing running water, sewerage, lights, and other home conveniences. The second is in the building of farmhouses and concrete construction. The third is in giving information about farm machinery and motors. During the year the farm engineer has made 99 practical demonstrations, including the building of 10 dairy barns, 6 mule barns, 16 self-feeders, 5 breeding crates, 6 poultry houses, and the installation of 4 hydraulic rams, 3 water towers, 17 silos, and many other similar demonstrations. During the same period, 1,364 sets of plans have been mailed out, with a bill of materials for each plan. New designs for farm buildings have also been prepared and blue-prints are in preparation. The farm engineer has coöperated with 41 county agents in carrying on his work. He has attended 29 meetings where there was a total attendance of 1,273 farmers. This work has proven to be one of the most popular phases of extension work in the State. Farmers are beginning to find out that they can secure these building plans free of charge from the Extension Service, and more of them are writing for this service. Not only has the farm engineer been required to furnish blue-prints and bills of materials for the economical construction of farm buildings, but in many cases it has been necessary for him to make a personal vist to the farm and help in actual construction.

PUBLICATIONS

A feature of the work done by the Divisions of Publications during 1923 has been its effort to render assistance to the weekly papers of the State. Each Thursday the division has prepared and mailed out to these papers a series of short, timely articles, and a check made shows that about 85 per cent of the papers of the State are using the material supplied them. This office has also worked with the Associated Press in supplying material to the daily papers of the State, has prepared a special article each month for the *Progressive Farmer* giving timely notes from leaders in extension work, has prepared a special article for the *Southern Planter* each month, and supplied an additional feature article to the six leading daily papers of the State for publication on Monday morning.

A total of 687,890 pieces of circular matter have been prepared and nearly 500,000 copies of this mailed from the office. The division has also multigraphed most of the letterhead paper used by the other divisions and has edited and distributed 7 extension circulars with a

total issue of 54,000 copies; 9 extension folders with an edition of 84,000 copies; and 3 extension posters with an edition of 8,000 copies have been printed and distributed. At this time about 15,500 copies of *Extension Farm News* are printed each month. The division has also handled the publications of the State Department of Agriculture and the Agricultural Experiment Station. Recently it has taken charge of the distribution of *Agriculture and Industry,* a weekly clip-sheet prepared by Dr. Carl C. Taylor of the college staff. These duties are in addition to that of handling supplies for the various extension workers in the field, which are sent out on a twenty-four-hour service.

REPORTS OF DIVISIONS

Attention is directed to the following pages, which give the detailed reports from the various divisions of the Agricultural Extension Service and the financial report for the past year.

REPORT OF ASSISTANT DIRECTOR

To the Director:

During the year 31 visits to agents were made, 7 demonstrations visited, 17 meetings attended, with attendance of 1,538, 1,976 letters written, 386 office consultations held, 2,155 miles traveled by auto and 5,182 miles by rail.

FAIRS

Fairs assisted this year were as follows: 2 State (1 white, 1 negro), 44 white county and 149 white community, 6 negro county and 28 negro community fairs, making a total of 229. Home and farm agents organized and judged the community fairs. Specialists and home and farm agents were used in judging the county fairs.

SODATOL

After the supply of picric acid was exhausted the Federal Government began the distribution of sodatol, an explosive made from a combination of sodium nitrate and TNT.

This material was distributed to the farmers in the same manner as the picric acid.

A total of 302,500 pounds was brought into the State and distributed in eighteen counties at a saving in the equivalent of similar explosives of over $45,000.

There still remains a considerable amount of this material in New Jersey, and it is hoped to place at least 3,000,000 pounds more before the supply is exhausted.

OFFICE RECORDS AND REPORTS

During the year the work of improving systems of keeping records in county agents' offices was continued. Agents are gradually falling into line with better methods of office work. Some time was given to a study of district agents' office records, and with their assistance several changes were brought about to make this work more complete.

Following up the work that was started last year in having each county agent prepare a definite program of work to be followed, the forms on which such plans were made were changed and made more adaptable to the needs of the county agents.

With the interest that was developed because of the efforts to follow a definite, well-thought-out plan of work for this year, it is possible for us to have every agent in the State working on an organized plan of work which has the approval of the interested people of his county during 1924.

Respectfully submitted,

James M. Gray,
Assistant Director.

REPORT OF THE DIVISION OF FARM DEMONSTRATION WORK

To the Director:

Herewith you will find the annual narrative report for the Agricultural Extension work of the county agents for the year ending November 30, 1923.

Work done by the negro local agents is reported separately by State Agent C. R. Hudson, and work done in agricultural clubs is reported by Assistant State Agent S. J. Kirby.

ORGANIZATION OF EXTENSION WORK IN COUNTIES

There are now seventy-one of the one hundred counties that have county agents at work. Seven counties are now open, awaiting the appointment of county agents. These will be filled in the near future.

Several changes in the personnel of the workers have been made during the year. These changes are given below.

MOUNTAIN DISTRICT:

District Agent C. C. Proffitt resigned.

John W. Goodman, Jr., was promoted from Avery County to fill the vacancy.

Ashe County: Appropriation discontinued.

Avery County: John W. Goodman transferred. C. B. Baird appointed to fill vacancy.

Buncombe County: C. E. Miller resigned. L. D. Thrash transferred to fill vacancy.

Cherokee County: New territory. H. H. Ellis transferred from Ashe.

Henderson County: S. S. Stabler resigned. Vacancy unfilled.

Macon County: New territory. John V. Arrendale appointed.

Mitchell County: New territory. E. D. Bowditch appointed.

Transylvania County: J. W. Lindley resigned. L. A. Ammon appointed to fill vacancy.

PIEDMONT DISTRICT:

Burke County: New territory. R. L. Sloan appointed.

Davidson County: George Blum resigned. Appropriation discontinued.

Davie County: New territory. George Evans appointed.

Gaston County: Office of Assistant County Agent created. W. R. Anderson appointed.

Rowan County: Office of Assistant County Agent created. A. J. Rankin appointed.

Rutherford County: L. D. Thrash transferred. F. E. Patton appointed to fill vacancy.

CENTRAL DISTRICT:

District Agent T. D. McLean resigned. O. F. McCrary transferred to fill vacancy.

Durham County: O. H. Stanard resigned. Vacancy unfilled.

Lee County: New territory. E. O. McMahan appointed.

Scotland County: C. L. Newman resigned. S. E. Evans appointed to fill vacancy.

Union County: T. J. W. Broom resigned. Vacancy unfilled.

Northeastern District:

Union County: District Agent O. F. McCrary transferred. W. B. Pace promoted to fill vacancy.
Beaufort County: B. T. Leppard resigned. Vacancy unfilled.
Greene County: T. B. Brandon appointed to fill vacancy.
Halifax County: Office of Assistant County Agent created. W. O. Davis appointed.
Hartford County: H. L. Miller resigned. Vacancy unfilled.
Pitt County: W. B. Pace promoted. R. B. Reeves appointed to fill vacancy.

Southeastern District:

Craven County: J. G. Lawton resigned. C. B. Faris appointed to fill vacancy.
Cumberland County: F. W. Risher resigned. Colin McLaurin appointed to fill vacancy.
Nash County: New territory. H. M. Parker appointed.
Wayne County: Office of Assistant Agent created. J. D. Brandon appointed.

Considerable attention has been given by the supervising force to the organization of the work in the various counties. All agents are now working on a well developed county plan, and most of them have the active support of organized groups of farmers in planning and executing these plans. The district agents have given valuable assistance in developing community programs. It is conservatively estimated that 75 per cent of the work outlined in these programs has been accomplished.

The most common method of developing a community program is for the people to come together at a common meeting place and outline the greatest needs of the community, discuss plans of solving these needs, and decide on certain plans for their solution on which the community can agree.

A typical illustration is the following: At a conmmunity meeting it was brought out that the outstanding need was money. The question was asked, "What can you grow that sells for money?" "Cabbage," was the answer. The community at once agreed to grow cabbage commercially. The result was 35 acres of cabbage that sold at good prices.

During the year there has been considerable stress laid on the necessity of special groups of people to help carry on the work with special features, such as dairying, potato growing, or wool sales. Many agents have been able to get the assistance of such groups. In Watauga County the wool producers agreed to pool their wool and to leave the sale of same to a committee appointed by them from their number. This has proved a very satisfactory way of handling this and similar problems.

A typical county program and results are given below. This was made possible by an advisory group of 24 farmers acting as a county council for the county.

PROGRAM OF WORK 1923*

ORGANIZATIONS

Project	*Goal*	*Result*
a. County Council (Three members per township)	24 members	15 present
b. Community Clubs	9 communities	6 organized
c. Boys' and Girls' Clubs	6 clubs, 48 members	5 organized, 60 M.
d. Bull blocks	6 blocks	3 bulls bought
e. Coöp. Lime Assn.	1 warehouse	2 organized
f. Coöp. Fruit Growers	Promote interest...	Interest aroused
g. Dredging projects	2 districts	1 completed
h. Rural telephones, 8	8 party lines	Failed
i. Cream routes	Promote 3 routes..	2 cream stations

SOILS

Soil imp. campaign	10 lectures	15 given
Lime Demonstrations	40 planned	75 secured
Clover Club	20 members	completed, 1,500 lbs.

AGRONOMY

Cereals	None planned	12 completed
Legumes	40 dems. planned ..	89 secured
Special crops	5 planned	8 secured

HORTICULTURE

Pruning, spraying	16 planned	14 given
Plans for home	2 planned	4 surveyed and set

LIVESTOCK

Swine feeding	1 planned	1 completed
Beef cattle	1 carload	1 car finished
Permanent pastures	8 planned	3 completed

RURAL ENGINEERING

Terracing dems.	40 planned	50 given
Home water sys.	1 planned	3 surveys made
Farm buildings	1 barn	4 buildings, 1 barn

MISCELLANEOUS

Lawns-homes impr.	10 planned	10 completed
Supervision county		Highest commendations
Home farm	Self-supporting basis	of grand jury
Fairs	4 community	1 held

SUPERVISORY PROGRAM

One of the big problems at the beginning of the year was a State-wide program for meeting the problems of the first year of general boll weevil infestation in the cotton counties. This was met by a campaign in the

early spring for the planting of food and feed crops, another campaign for the planting of early maturing varieties of cotton, another for heavy early fertilization and rapid cultivation, another for dusting with calcium arsenate when certain amount of infestation occurred. That these campaigns were successful is evident by the biggest cotton crop in the history of the State and the largest amount of feed and food crops ever grown in the counties affected.

In the territory outside the cotton region the big problem is a money crop. Most farmers grow their own supplies, but few have real income-earning crops. This problem has to be met differently in almost every county.

One of the outstanding pieces of work along this line is the sauerkraut factory in Watauga County. The section is well adapted to the growing of cabbage, but because of marketing conditions cabbage usually sold for less than $10 a ton. The Extension agencies presented the matter of a kraut factory to the people. The result was a factory costing approximately $10,000 with a capacity of 250 tons of kraut. Because of this there will be more than 350 tons of kraut made this year, which will bring the farmers about $15 a ton for their cabbage, and the price of raw cabbage of marketable quality was held above $20 a ton during the season.

Because of the great increase in the demands on the agents' time for assistance in new and larger undertakings, the absolute need of a well organized office has been forced on them as never before. This has resulted in more calls for assistance in this matter. Much has been done to equip offices and to bring to the attention of local authorities the necessity of supplying agents with stenographic help. As yet most of the agents are compelled to do their own stenographic work and filing.

During December all agents were brought into the State College for a week's training in some of the more important matters and to develop their plan of work for the year. The training was largely on rural organization and marketing. During the summer there were held three regional conferences. The discussions at these conferences were around regional problems. As an illustration: In the eastern section the leading question pertained to the growing of more and better pastures and the maintenance of more livestock as a factor in farming under boll weevil conditions.

PROJECT ACTIVITIES AND RESULTS

The various subject-matter heads assist the specialists in outlining the major pieces of work to be undertaken during the year. The specialist in turn takes these to the extension supervisory forces and to the county agents at their annual conference. From this conference is developed the program for the year in these major subjects.

These major subjects are: Agronomy, Horticulture, Animal Industry, Forestry, Rural Engineering, Agricultural Economics, Plant Pathology and Entomology.

AGRONOMY

The work in agronomy is grouped under soil improvement and farm crops.

Soil improvement is a problem met in every county. Every county agent has definite demonstrations running through a period of years on the solution of this problem. Just how this is being done in very well illustrated in a report on one farm in Caldwell County.

"Three years ago Mr. Tom Green of this county bought what I considered one of the poorest farms in Kings Creek Township. This farm contained 180 acres, which was badly gullied and washed. The man from whom Mr. Green purchased the farm declared that he could no longer make a living on the place, and sold out and went to Virginia. The land had never grown any grasses, beans, peas, clovers, or legumes of any kind. Immediately after getting possession, Mr. Green came in my office and said that he wanted me to help him improve this farm. The first thing we found necessary was to properly terrace the cultivated land. We then limed, fertilized, and planted about four acres of soybeans. Mr. Green harvested 12 bushels of beans per acre with a little giant bean harvester. After putting the vines, leaves, and pods back to the soil, the land was then sown to wheat and red clover. The results were very satisfactory. Mr. Green now has around 80 acres of his farm in grasses, beans, peas, and clovers, and says that by the use of lime, fertilizers, beans, peas, clovers, grasses, and his bean harvester, he is going to improve his entire farm. After renovating the old orchard, he now has a nice home orchard. He has seven cows from which he receives a $50 cream check per month. He has two brood sows from which he sells around $200 worth of pigs each year. He also has a nice flock of hens which brings him a handsome little income. He and his family are making an independent living and are at the same time building up their farm. What he is doing on the old worn-out farm is the talk of the people in the entire community."

FARM CROPS

Most of the work with farm crops is either seed selection or fertilization. With seed selection, it is the aim to get the community to use one variety that has been proved among the best by the Experiment Station. The following from the Wayne County report is typical of methods used and results:

"The plan of procedure was to get the proposition before the people, and this was done by getting the Plant Breeding specialist here for a series of meetings to discuss the monetary value of good seed. At these meetings we appointed five reliable farmers to do house-to-house canvassing, taking orders for seed. These men were trained in this line of work and well posted. The Duplin County agent assisted in the work and shared equally in putting the proposition over. When all orders were turned in, they were placed in a pool and the farmers were able to buy seed at a saving of 85 cents per bushel. The total amount of the order was 1,410 bushels, being distributed among 130 different farms. Fifty-four of the men ordering seed were tenant farmers.

"Records were kept on fifteen of these farms and turned in to me at the end of the year, and it was found that the average increase in yield per acre, over the other varieties, was 500 pounds of seed cotton and the per cent of

lint was over 40 or 50 per cent more than the common varieties found in the community. The average yield on 76 acres was 1,473 pounds of seed cotton per acre.

"We have saved 3,500 bushels of seed ginning them on a private gin and will have them recleaned and bagged. We have 520 bushels that were kept pure at the gin by dumping out the gin roll and catching the seed in sheets. This will probably supply the local demand for the coming year. I have three growers who are doing some seed breeding, making single-stalk selections."

The fertilizer work with crops consists of getting the best formula used and assisting in the economic purchase of such fertilizer as may be needed. The following is a typical demonstration of the value of the right formula:

In 1922 J. L. Bradford of Iredell County planted eighteen acres in cotton, using 400 pounds of 8-2-2 fertilizer per acre. He harvested twelve 500-pound bales.

In 1923 Mr. Bradford planted the same land to cotton, using 400 pounds of 12-4-4 fertilizer per acre. The season of 1923 was not as favorable as that of 1922, yet Mr. Bradford harvested fourteen 500-pound bales of cotton from this same land. He attributes this difference to the high-grade fertilizer.

In the purchase of fertilizers, the report from Macon County is typical. This being a corn and grain county, the major portion of the fertilizer used is acid phosphate. At the opening of the season the fertilizer dealers were charging $21 a ton for this material. At the request of the farmers, the county agent got car lot prices and found that it could be delivered for $16, or a saving of $5 a ton. The farmers ordered three carloads coöperatively. Immediately the dealers dropped the price to $15.50 a ton. The farmers bought the remainder of their material from the dealers at the reduced price.

HORTICULTURE

The horticulture of the State is most varied, ranging from lettuce and strawberries, sweet potatoes and early Irish potatoes of the east, to peaches in the sandhills, and apples and Irish potatoes in the west. Constructive work is being done in all sections of the State with the various horticultural crops. One of the most outstanding pieces of work is the development of a large seed potatoe producing area in the western part of the State. The commercial growers of early Irish potatoes from Florida to Virginia are largely dependent for seed on the Maine and Michigan growers. For several years work has been done along this line until this year it was thought advisable to grow seed commercially. Several thousand bushels were grown and have already been sold at a premium over Maine-grown seed to growers along the coast. This opens up a new field of agriculture to ten or more mountain counties that heretofore have not had a money crop.

FORESTRY

Work in forestry as a definite feature of farm demonstration activity is just starting in the State. There are unusually good opportunities for farm forestry from a monetary standpoint. The following from the Iredell County report shows some of the possibilities:

"Mr. A. J. Deal of Elmwood was encouraged to thin a five-acre block of pines about twenty-five years old. The county agent gave instructions and assistance. As a result of this, the lot was thinned, yielded fifteen hundred fence-posts, and twelve cords of wood. The fence-posts were sold for $180 at an expense for cutting and delivering of $80, thus giving a net profit of $100 on the five acres, or $20 per acre. No value was placed on the wood, other than it paid for the expense of removal. It will require another thinning before the wood-lot is brought to a timber stand. Mr. Deal will realize from this work a good income from the five acres and still have left a more valuable lot of timber than when he began his work."

ANIMAL HUSBANDRY

Under this grouping is work with dairy cattle, poultry, swine, sheep and beef cattle. All county agents have well defined work in one or more of these lines.

Dairy work consists usually in aiding farmers to get better cows, to provide proper feed for them, and to develop a community interest in pure-bred sires. The following story is indicative of the results following a period of years where dairy work is encouraged:

"Ten years ago Mr. Hester and his family, of Caldwell County, were existing on a small rented farm with practically no house at all in which to live. He went in debt to buy three cows. Having a surplus of milk over and above his home consumption, he next bought a separater and started separating milk and selling the cream to the Hickory Creamery. In addition to the cows, the family added pigs and poultry to their farm operations. After a few months they found that by selling cream and feeding the warm skim-milk to their calves, pigs, and poultry, they were not only making a nice little profit from cream checks, but also from the pigs and poultry. Just as soon as a member of their family became large enough to assist them, they would not only add to their farm operations, but they would add five or six more cows to their herd, and this would naturally require more pigs and poultry to consume the additional amount of skim-milk. They continued this type of farming year after year, making a nice profit each year and at the same time educating their children. Their oldest daughter is now considered a very efficient teacher in the county. Their next oldest child, and only boy, is in his senior year in high school. He has attended for seven years without either missing a day or being tardy. Their next oldest daughter has attended for six years without missing a day or being tardy. Their baby girl has attended for two years without being absent or tardy. They now own a 600-acre farm, live in a nice home, ride in their own car, and say the dairy cow is responsible for it all. Their cream check for last month was $170 from our Caldwell County Coöperative Creamery."

The program for fighting the boll weevil calls for the production of larger crops of corn. This oftentimes brings up the problem of a market for corn. To a considerable extent this has been solved by the feeding

of hogs on a definite schedule outlined by our Swine Extension specialist and by marketing coöperatively. The farmers having corn for sale and one or more pigs are grouped together for car shipments of 70 hogs. When these farmers agree to follow instructions they are practically sure of selling their corn through the hogs at $2 per bushel. The Anson County agent tells of this work in the following story:

"There has been more interest manifested in the growing of hogs this year than usual. The importance of feeding hogs a better balanced ration is more appreciated by our farmers. About forty self-feeders are being used in the county and several tons of fish meal and tankage are shipped into the county every few weeks to be fed to hogs in combination with corn. Sixty pure-bred hogs have been shipped into the county this year for breeding purposes and a large number of pure-bred hogs have been produced in the county and sold to local farmers.

"Four carloads of fat hogs were shipped out of the county and more fat hogs were used by our local markets than was ever known before. The demand has been good; the quality has been good. One farmer sold to the local markets more than $2,000 worth of pork this year. The local markets seem to appreciate the better quality of pork they are getting. The manager of one market made the remark that if the county agent had never done anything else but introduce the using of self-feeders, that that was worth a great deal more than the entire cost the agent had been to the county.

"The interest in hog production is still increasing, and wherever we thought it advisable we have been encouraging the growing of a few hogs—enough to consume the surplus corn.

"About twenty-two hog-feeding demonstrations were put on in the county, which gave some interesting information. The average cost per pound has been around 5½ cents.

"The four cars of fat hogs shipped amounted to around $4,000. The amount of fat hogs sold on the local markets has amounted to around $8,000, making a total of about $12,000 that has been received by farmers for fat hogs this year.

"A pure-bred hog sale held on March 15th attracted a great deal of attention and created a great deal of interest in pure-bred hogs. Thirty-two head on that date sold for more than $1,500. The county agent has assisted in securing a number of breed gilts for farmers during the year and also assisted in placing a large number of pure-bred pigs and gilts raised in the county."

Similar work is being done with poultry and sheep.

RURAL ENGINEERING

Work in rural engineering so far is largely a matter of individual effort, such as installing home water and lighting systems, furnishing plans for homes and farm buildings, and giving assistance in purchasing the right machinery and home conveniences. Terracing land is about the only engineering problem that has been practicable to carry on as a community project. In this work the agents hold terracing demonstrations where the farmers are brought together in groups and taught the use of the farm level and the methods of terrace construction.

MARKETING

Work in marketing is as varied as the surplus products on the farm and the needs of the farmer. Through the coöperation of the various marketing associations within the State, much good work has been done in teaching the farmers principles of marketing and the importance of quality, and quantity production.

The experience of the Macon County agent in meeting a marketing problem is typical:

"In the early spring most farmers of the county market a good number of chickens, mostly old hens. The prevailing price for these was 15 cents per pound. The county agent wrote for bids on carload lots, and was assured considerably more than this price. He got the support of a local organization of farmers and business men who advertised a poultry sale to be held at the county seat on April 25th. Chickens of every age, description, and condition were brought. These were graded, weighed, and paid for on the price basis as advertised by members of the club. The price paid was 5 cents per pound more than local prices, and gave to the farmers participating more than $500 above what they could otherwise have gotten. This sale was so satisfactory that another was held on May 23d, and a third on June 28th. The three car shipments cleared more than $1,500 for the farmers. At this time the local market was consuming most of the surplus at good prices and weekly express shipments were found to be all that was necessary to keep the price on a profitable basis."

Work in organizing local or curb markets and many other marketing activities were undertaken during the year.

FARM TOURS

Several of the agents have organized and conducted farm tours. The following from Rowan County report described one of these:

"The project of farm tours was not seriously considered in making out the plan of work for the year, but with the year's work well started it became evident that we would need to include farm tours. This fact was thoroughly established in our project to carry 50 junior club members for a week's outing, when the Extension agents were besieged by the parents of these club members to make preparations for a farm tour immediately upon their return from the club camp.

"In looking about for a territory in which the Rowan County farmers might take a tour, it was decided to take a trip into a grass country, for, with the increasing dairy interests in this county, the Extension agent felt that there was more to be gained by touring through a grass country than one of 'cotton and boll weevil.' Announcements were made in the local paper that there would be a farm tour, starting out on a certain Monday morning, to be for the duration of one week, and for all desiring to make the trip to report to the county agent by a certain date. The plans were made to take a trip into East Tennessee and Southwest Virginia.

"When the tour started out on the morning of August 20th the party consisted of 40 farmers from Rowan and 13 farmers from Cabarrus County, accompanied by County Agent R. D. Goodman.

"The first stop was at the Shuford Dairy Farm near Newton, where the party had an opportunity to see a North Carolina farm on which grew as

good grass as any that they would see on the trip; and when the trip was completed this first proposition held true.

"The second stop was made at the Howard-Hickory nursery near Hickory, where the farmers had an opportunity to see the commercial budding of peaches on a large scale, as well as the growing of ornamentals by the acre. The first night was spent at the Mountain Branch Experiment Station near Asheville, reaching there in time to look over the test work with corn, legumes, and potatoes that afternoon, and looking over the orchard and poultry yard the following morning. On the morning of the second day a short stop was made to look over the City Market, in Asheville, a market such as very few of the men in the party had ever seen. Newport, in Tennessee, was reached early the second afternoon in time for the party to inspect the Stokley Cannery, which at that time was putting up over 50,000 cans of corn per day.

"The second night was spent at the Allendale Short Horn Farm, composed of 300 acres of fertile East Tennessee bottom-land, and carrying 150 head of fine short-horn cattle and over 100 head of Hereford cattle, all showing careful breeding and show quality. These men were shown fields that had been in corn continuously for more than 30 years, and still giving evidence of better than 75 bushels of corn per acre. The fields receive an application of manure on alternate years, and alternating crops of crimson clover and soybeans.

"A stop was made at the Blue-Grass Dairy Farm on Wednesday morning, where the men got their first opportunity to see a real blue-grass pasture on heavy limestone land; and a pasture it was, evenly cropped by the 150 head of pure-bred cattle, and still thick and luxuriant.

"Knoxville was reached on Wednesday afternoon in time to inspect the livestock, poultry, and pasture work of the Tennessee Experiment Station, and also to visit the Riverside poultry farm. A real commercial, day-old chicken plant, with incubator for over 70,000 eggs at one setting, and plans to increase the capacity to over 100,000 eggs before the new hatching season opens up. A 10,000-egg unit was in operation at the time of our visit, so that the men had an opportunity to see the eggs in process of incubation, and how they are handled. The Storkey's Dairy plant was also visited on Wednesday evening, consisting of a dairy with about 100 head of pure-bred cows in milk, a plant modern in every respect and netting the owners a satisfactory profit.

"The following morning the party were guests at a breakfast given by the American Limestone Company, following which a visit was made to the American Limestone Plant at Mascot, where the men were given an opportunity to see zinc in every process of manufacture from the crude ore to the heavy product ready for the refineries, and also agricultural lime in every state from the crude ore, through the zinc limes and on to the lime plant, even to the bagging and shipping. We now visited the Mascot Farm, being an outstanding demonstration of soil building from a worn-out and depleted soil fertility to a fine farm of high production by the use of lime, phosphates, and livestock.

"The next stop was at the Morristown poultry plant, a plant that finishes an average of 2,000 chickens a day ready for the market, this feeding period comprising two weeks time. The men had an opportunity to see every step of this operation from the unloading of the East Tennessee frying-sized chickens from the country buyer's truck, through the different stages of feeding, sticking, dry picking, cooling and packing in ice for shipment to the fancy hotel trade in Eastern cities. This visit was of more than passing interest.

The visitors saw how it was possible to take a two-pound chicken from the Tennessee farm and by careful feeding add an additional pound in two weeks at a cost of about 15 cents for feeding and overhead. The market value of the original two pounds was increased 8 or 10 cents per pound in the operation, giving the men a cue on the sale of the farm surplus of chickens, where the farm has not only the buttermilk, but also much of the grass that is necessary to make the gain.

"The next stop of importance was the county fair at Abingdon, Virginia, to which members of the party were given complimentary tickets. The drive was then continued east and through Marion and on to Wytheville, from which place we turned home with a stop-over at Hillsville long enough to look over the court house made historic by the Allan boys some years ago. From Hillsville the party rushed on into North Carolina via Mount Airy, Yadkinville, and Mocksville to Salisbury.

"All felt that the trip had been more than worth while—in fact, it had been an outstanding event in the lives of some of the men in the party, carrying them farther away from home than they had ever been before, and carrying them into lands of plenty that they did not think was possible. They returned home with a new vision of agriculture, for they had not forgotten what they had seen on Mr. Shuford's farm on Monday—a good country home, fine grass and good cattle, and also that North Carolina has roads, whereas Tennessee and Virginia still have theirs to make.

"Later on in the summer two other short tours were made by a smaller number of farmers to livestock and pasture farms in neighboring counties. All of these have been of exceptional interest to the farmers making the trips.

"The county agent learned that to accompany a farmer on a farm tour for a week will help him to know this farmer a little better than is possible by any other form of association in Extension work, even though it carry us over several years time; and an effort is going to be made to make the farm tour a permanent project in this county."

For complete records of activities and results, the statistical report on the following pages is referred to.

ENTOMOLOGY

The two main features of work in Entomology are direct boll weevil control and bee-keeping.

Work with boll weevil control was carried on by a comparison of the various methods recommended. The season was unfavorable for striking results in control methods. The dust method gave the most effective results.

The work in bee-keeping was largely in general management and care. Striking results were obtained in many instances.

PLANT PATHOLOGY

Work was carried on in disease control with tobacco, potatoes, apples, peaches, tomatoes, and cotton wilt.

This consisted of demonstrations in direct control methods and in the propagation of disease-resistant varieties.

STATISTICAL SUMMARY OF WORK OF EXTENSION STAFF

	CRH 1	SJK 2	ESM 3	TDMcL 4*	OFMcC 5	EWG 6	WBP 7	JWG 8	JMG 9	LEH 10	JDW 11
Number of office calls	600	470		29	79		343	608	386		553
Days in office	288	191	188		164	113	91¼	93	254	110	169
Days in field	71	107	116		121	209	120¾	113	51	199	144
Letters written	2,817	1,468	2,596	586	1,598	2,109	968	920	1,976	134	2,105
Circulars prepared	16	21			46		39			120	63
Copies mailed	8,000	3,485			4,443	1,412	3,202				4,674
Extension articles	13	37			8	15	5				43
Bulletins mailed	600										7,118
Miles by rail	7,472	5,905	7,702	1,916	9,283	11,976	7,031	4,617	5,182	13,762	7,212
Miles by auto	400	2,761	1,961	613	1,787	4,787	2,024	4,392	2,155	1,534	1,653
Farms visited	60	6			28						122
Farmers meetings	26	97	601		26	102	15	40	17		148
Attendance	3,100	7,824	3,573		2,435	23,851	974	5,746	1,538		26,540
Addresses made	21	97			22		12			89	148
Extension conferences	28	18	33		58	12	79	14		104	28
Attendance	224	180			286			81			224
Agents resigning					3	2	1	4			
New agents appointed			3	2	1	5		7			
Visits to agents	45	96	69		41	170	68	56	31	71	13
Demonstrations visited	22	6			18				7		
Totals	15,736	22,769	16,842	3,146	19,839	44,763	14,973	16,691	9,442	16,123	50,957

1—C. R. Hudson
2—S. J. Kirby
3—E. S. Millsaps
*4—T. D. McLean
5—O. F. McCrary
6—E. W. Gaither
7—W. B. Pace
8—J. W. Goodman
9—J. M. Gray
10—L. E. Hall
11—J. D. Wray

*Worked only part of the year.

Respectfully Submitted,

JAMES M. GRAY,
Assistant Director.

NEGRO DEMONSTRATION WORK

To the Director:

In a general way, Extension work with negroes is conducted similarly to that with white farmers, with the necessary adaptations to meet the different conditions that exist with them.

The only change in the negro extension force during the year was the addition of a local agent at Dunn, Harnett County, and at Smithfield, Johnston County. Early in the year the negro district agent, L. E. Hall, was transferred from Chadbourn, in the southeastern part of the State, to Raleigh, the capital, in order to get him more centrally located for his work.

The negro district agent, under the State agent, has the direct supervision of the local agents' work. Club Agent J. D. Wray, under the State agent, has the direct conduct of the club work in the counties outside of local agent territory. He, therefore, helps to make the plans and outlines of the work for local agents in order to make the work uniform throughout the State. The local agents have the immediate supervision of the club work in their respective territories.

The State agent and the district agent assist in the organization and plans of the work of the local agents. This is done in State conferences, two of which are held each year. Outlines of plans of work are furnished local agents in advance of these meetings, so that they have their plans made when they come to the conference. The plans are then reviewed and revised wherever thought advisable. Then, throughout the year the district agent visits and advises the local agents regularly once each quarter and at other times as occasion may demand. The State agent also visits each local agent twice or more a year on regular schedule and at other times whenever necessity indicates it. On these visits by the State and district agent the whole scope of the work is reviewed with the local agent, with special emphasis on any feature that may demand special attention at the time. In addition to this, a review of the weekly field reports from the local agents, together with such correspondence as may be necessary, helps to keep the work lined up with the plans.

During the year the work was conducted by local agents regularly in eighteen counties and in a few strategic communities in five adjoining counties. These agents included club work in their activities. Outside of the eighteen counties the club agent conducted work with boys and girls clubs in eight counties and in a few strong communities in eight other counties. This makes a total of thirty-nine counties in which extension work with negroes was conducted. There were two hundred and twelve community plans developed in thirty of the counties with varying degrees of success, but on the whole satisfactory.

As to the estimated percentage of accomplishments, the following figures were procured during the first of September to show to what extent local agents were carrying out their plans:

PERCENTAGE OF ACCOMPLISHMENT ON SEPTEMBER 1, 1923

CROP DEMONSTRATIONS

Planned		*Secured*
496	Corn	533
229	Cotton	239
112	Tobacco	123
129	Potatoes	103
27	Fertilizers	132
71	Pruning	83
97	Deep plowing	113

LIVESTOCK DEMONSTRATIONS

Planned		*Secured*
53	Family cows	25
3	Registered bulls	1
88	Permanent pastures	79
15	Brood sows	32
—	Registered boars	2
—	Hens	66
—	Cocks	6
—	Setting of eggs	154
950	Baby chicks	875
45	Poultry houses built	29

ORGANIZATION AND COOPERATION

26	Adult Clubs	20
35	Junior Clubs	27
28	Community Fair Associations	20
1	Tri-County Fair Association	1
24	Cars Fertilizer purchased coöperatively, average of 30 tons per car with a saving of $180 per car for the farmers, or $4,320 total	30
3	Carloads of lime, with an average saving of $150 per car for the farmers, or $450 total	3

MISC.

196	Whitewashed homes	191
37	Painted houses	30
93	Screened homes	193
53	Sanitary toilets	27
1,532	Gardens	1,584
	Tractors purchased	3

With filing systems local agents have been provided with substantial covers in which to file copies of their weekly field reports. These files are the property of the agent only as long as he remains in the work. After he leaves they become the property of his successor, when appointed; otherwise, they are turned over to the State agent.

The agents also are provided with letter files, bulletin files, and other office conveniences of this character. None of the agents are furnished with stenographic help. Five of them have typewriters, which they use with more or less dispatch. All of them have their circular matter multigraphed by the Division of Publications whenever such circulars are needed.

In personnel training, two full conferences of agents are held each year. At one of these meetings plans are made for the year's work, while at the other the main feature is instruction. At both conferences various things of importance are discussed.

When new agents are needed they are usually procured as graduates from the North Carolina State Agricultural College for Negroes, or from Hampton or Tuskegee Institute, or some other institution of recognized standing. Practical farm experience is required of all agents.

In subject-matter, assistance is given by the State and district agents after conferences with the subject-matter specialists of the college. The specialists also are used in presenting their lines of work at the two State conferences.

In the way of publicity, the county press is largely relied on for informing the public. The local agents also use circular-letters to farmers, and discuss their work and results with individuals and in meetings. From the State standpoint, both local weeklies and State dailies are used freely and with full coöperation.

During the year three campaigns have been conducted. The first was a garden campaign covering most of those counties of the State where there is a considerable percentage of negro population. In several counties where there are no white or colored agents the matter was handled through county superintendents of public instruction, who readily coöperated in the matter. Most of the work, however, was done in local agent territory. Much publicity was given to the matter through the press and in other ways. An enrollment card was prepared to be signed by those who, as a result of the campaign, planted at least six vegetables. No one was enrolled until he had planted the required number. As a result about 2,500 signed and returned the cards. There were considerable numbers outside of these, however, who were influenced to do more and better garden work. The effects of this work have been visible in the better gardens seen on negro farms during the past year. The gardens were not only better prepared, better cultivated and fertilized but vegetables in a greater variety were planted. A garden manual was put into the hands of each person who enrolled, and numbers who did not enroll, which gave a list of the vegetables suitable to be

planted each month and those that were adapted to the different climatic conditions of the State, especially for the mountains and the coastal plains. A pocket-size condensed pamphlet giving just the essentials of garden work was also furnished each negro farmer taking part in the movement. This is considered one of the most successful and most useful pieces of work done for negro farmers during the year.

A second campaign for the planting of summer legumes was conducted early in the summer. This campaign was handled entirely through the local agents, with the usual methods of publicity, but with a reliance mainly on personal visits to individual farmers and a discussion of the matter in groups and large meetings. This campaign was also successful, but not to the extent as that of the garden campaign.

A third campaign was one put on in late summer for the planting of winter cover crops, mainly for soil fertility purposes. This campaign was conducted in a manner similar to that with the summer legumes, and the success obtained being about the same. In this was advocated the planting of crimson clover, vetch with rye and red clover on the stiffer soils. The clovers were to be planted up until the first of November, but rye by itself to be planted as late as the first of December.

Another good piece of work done was that of encouraging the planting of pastures, both spring and fall. This was not put on as a special campaign. The results in this movement were very gratifying.

Extension work with negroes has a favorable outlook for the coming year. Since work on this report was begun six counties have made moderate appropriations to support the work. Others will be made during the year; so we shall have local financial support in every county where the work is conducted.

The moral support now given is also good. Business men especially, and progressive white farmers, are in accord with the work. Closer supervision will be given the work during the coming year to make it more intensive and more successful. Further, better records will be kept and the agents will be able to more accurately report their activities.

SOME INDIVIDUAL ACHIEVEMENTS

In reviewing the activities of the negro agents, some good work is shown, as follows:

J. W. Jeffries is developing a dairy section in a community in the northern part of Alamance County, through the coöperative purchase by farmers of one of the best pure-bred Jersey bulls in the State. He is also giving much attention to pastures and better feeding and care of milk cows.

In Bertie County, Local Agent J. C. Hubbard has led in the construction of modern poultry houses, having helped to build nine during the year.

In Columbus County, J. W. Mitchell led in the summer legume campaign by getting 1,329 acres planted. Also, his work was considered the

best all-round of any of the agents. He, therefore, won the gold medal, provided by the district agent, for the best work, and also won the silver medal for the largest acreage planted to summer legumes.

Duplin County, with Agent R. J. Johnson, led in getting family cows placed on farms. Eighteen cows were placed by this agent during the year.

Local Agent D. D. Dupree, in Greene County, stands first in getting home lighting plants installed. He has had 14 completed with prospects for others later.

Local Agent Oliver Carter, in Martin County, led in the largest number of pastures planted, thus winning the bronze medal offered for that work.

I. D. L. Torrence, in Mecklenburg County, is believed to have had the best fair. In addition to splendid exhibits of farm crops, he had a considerable number of horses, dairy cows, hogs, poultry, and club exhibits. His fair was educational.

S. T. Brooks, in Robeson County, had three very interesting community fairs with much of educational value in them. His other work was good.

Sampson County, with Agent G. W. Herring, is said to lead the others in the matter of reaching the largest number of people. He did this through organizations.

L. H. Roberts, in Wake County, has led all the agents in the matter of procuring farm finances from Federal loan associations and local banks.

Respectfully submitted,

C. R. HUDSON,
State Agent.

REPORT ON BOYS' CLUB WORK

To the Director:

Herewith I submit a report for the agricultural club work done in North Carolina during the year ending November 30, 1923. The statistical part of the report is given in Form 285-A. The club work done by the white and colored agents is reported on separately.

WHITE CLUB WORK REPORT

White Agents Reporting Club Work

Fifty out of a total of 78 county and assistant county agents report club activities as a part of their program of work put on during the year, those reporting being as follows: W. Kerr Scott, Alamance; U. A. Miller, Alexander; J. W. Cameron, Anson; R. K. Craven, Bladen; J. E. Dodson, Brunswick; L. D. Thrash and L. R. Harrill, Buncombe; R. L. Sloan, Burke; R. E. Goodman, Cabarrus; D. W. Roberts, Caldwell; A. H. Harris, Carteret; J. W. Hendricks, Catawba; H. H. Ellis, Cherokee; N. K. Rowell, Chowan; R. E. Lawrence, Cleveland; J. T. Lazar, Columbus; C. B. Faris, Craven; George Evans, Davie; L. L. McLendon, Duplin; R. W. Pou, Forsyth; L. B. Altman and W. R. Anderson, Gaston; J. H. Blackwell, Granville; T. B. Brandon, Greene; E. B. Garrett, Guilford; W. O. Davis, Halifax; H. A. Edge, Harnett; R. W. Graeber, Iredell; R. W. Gray, Jackson; N. B. Stevens, Johnston; E. F. Fletcher, Jones; E. O. McMahon, Lee; J. G. Morrison, Lincoln; W. L. Smarr, McDowell; John V. Arrendale, Macon; Kope Elias, Mecklenburg; A. R. Morrow, Montgomery; M. W. Wall, Moore; J. P. Herring, New Hanover; R. W. Galphin, Pamlico; G. W. Falls, Pasquotank; C. M. James, Pender; J. R. Sams, Polk; E. S. Millsaps, Jr., Randolph; O. O. Dukes, Robeson; F. S. Walker, Rockingham; W. G. Yeager and A. J. Rankin, Jr., Rowan; S. E. Evans, Scotland; O. H. Phillips, Stanly; Frank Fleming, Swain; J. O. Anthony, Vance; J. C. Anderson, Wake; J. B. Steele, Watauga; A. K. Robertson, Wayne; A. G. Hendren, Wilkes; B. Troy Ferguson, Wilson and D. H. Osborne, Yadkin.

Plan of Organization

ADMINISTRATION

Boys' club activities form an important part of the county agent's work. County agents, as a rule, set apart a definite portion of their time to be devoted to this branch of extension work. In most cases the boys and girls of a community are organized in the same club and the work is conducted jointly by the farm and home demonstration agents. A portion of each meeting is used for a joint program arranged by both

agents, the remainder of the time being used for separate sessions. The agricultural work is handled by the county agent and the home economics work by the home agent. Of course, this applies only in counties where there are both agents; in counties where there is only one agent only one branch of the work is undertaken.

The relation and responsibilities of the specialists and district supervising agents to the junior work are the same as with the adult work.

Club members in this State are organized by communities and not by commodities—that is, there is only one organized club to the community, the members being given their personal choice as to what demonstration or demonstrations they will take. This gives a greater variety of interest, a larger membership per club, and a wider choice of subjects for the regular programs.

AGRICULTURAL CLUB DEMONSTRATIONS

Agricultural club members are allowed to select one or more demonstrations from the list of crop or livestock projects given below:

Crops	*Livestock Clubs*
Corn	Pigs—
	(a) Feeding demonstrations
Small Grains—	(b) Growing for breeding stock
(a) Wheat	(c) Sow and litter
(b) Oats	
(c) Rye	Dairy Calf—
(d) Barley	(a) Growing for breeding
	(b) Cow—calf
Cotton	
Tobacco	Poultry—
Peanuts	(a) Chick production
Potatoes	(b) Egg production
Sweet Potatoes	
Soybeans	Beef Cattle—
Velvet beans	(a) Feeding demonstrations
Alfalfa	(b) Growing for breeding stock
Clover	
Orchard	Sheep—
Rotation	(a) Farm flock
	Bee-keeping

RESULTS WITH CROPS

Corn.—With those members taking up crop demonstrations, corn is the most popular. In the crops work the club demonstration plots are planted to pure seed of the varieties recommended by Extension specialists. By following the practice of having the club members select seed in the field, many communities have been given sources of good seed for most of the general field crops. Especially is this true with corn. One county agent says:

"The corn club members in this county have made it possible for farmers to get improved seed in their local communities."

Soil Building.—Another phase of the demonstrations with crops is soil building. One agent reports as follows:

"A number of boys are engaged in growing corn, wheat, cotton, and legumes. In organizing boys in this phase of club work we stress to the parent the importance of giving the boy who is interested in growing a crop an acre of land to be used by him as long as he wants it. This can be his poorest acre, for the boy gains more from soil building than from producing a high yield from dad's best acre. In several cases we have increased the yields from 14 to 48 bushels per acre. When a boy starts out with this method we generally advise him to buy a pig either for breeding or fattening purposes. In this way he can derive a little income to assist him in buying clover seed and the like, to satisfy his boyish mind and his bank account."

Potato.—Another crop demonstration which has been very popular, especially in the mountain district of the State, is with the Irish potato. In the potato, as well as the other garden and truck crop demonstrations, one-eighth of an acre is the unit area for the demonstration plots. The main value that has come from work with this crop has been in the beginning to instruct the boys and girls as to the value of treating seed for disease control, the proper selection of soils and good methods of fertilization, and, as the crop develops, the spraying and dusting for insect and disease control. Up until recently the practice of using commercial fertilizers in the production of the mountain potato crop was very limited in its application. Many of the club members are now producing certified seed potatoes with fair economic yields per acre. One county agent reports:

"In my county 30 boys and girls produced an average of 118 bushels per acre at a cost of 43 cents per bushel."

RESULTS WITH LIVESTOCK

Poultry.—This is the most popular branch of club work in North Carolina, due perhaps to the demand for high-class poultry and poultry products at good prices, and also to the fact that it requires only a small outlay of cash with which to go into the work. At least this seems to be the idea of the boys and girls.

Through club work pure-bred poultry has been introduced into a large number of communities, and the superior value of pure-bred birds, when good feeding and management accompany the pure-breds, has been demonstrated. The type of farm flock and the method of caring for the same have been influenced by this work. One county agent says:

"The most encouraging feature connected with the poultry club work in this county is the wonderful influence that the work has had upon the older farmers of the county. It was our desire when we started this poultry club work three years ago to teach the farmers how to produce fall and winter eggs, and that poultry is a money crop just like cotton or any other crop

on the farm. We have been successful, in a way. Some of our people think we have increased the winter egg production 100 per cent and that we have increased the pure-bred poultry accordingly."

Another agent says:

"We have seven poultry clubs in the county with ten or more members in each. The members in each club have adopted a single breed. I find that poultry is one of the best paying sidelines or money crops on the farm. Two young men in a certain section of this county have each sold more than $300 worth of eggs from their respective flocks of hens during the first ten months of this year. Others are doing almost as well."

Swine Work.—Pig club work is the second most popular branch of agricultural club work with the boys and girls. This project ranks next to poultry. In the production of breeding stock all pig club members are required to use pure-breds, and in feeding demonstrations to use either pure-breds or well-bred grade animals. Through this line of work the agents have been able to show the superior value of pure-bred swine and good methods of feeding and management.

One difficulty with this work has been that too many club members have had the idea that the sole purpose of their work was the production of breeding stock for which fancy prices were to be obtained. To correct this impression and to improve the work, the feeding of coöperative carlot shipments is being planned. This will put the work on a firm foundation and will lead the way for a new source of income for the junior swine men. Quoting from one of the agents on this point:

"The weakest point in pig club work as a whole in this county is the matter of feeding. To offset this, the club members of the county are going to feed out a carload of pigs, beginning around January the first and finishing them off for the March market, which on an average is the best spring month for selling. This demonstration will teach the lads a new system of feeding and breeding for the highest markets in the year. It will teach them, also, that rapid gains are by far the most economical gains. This is the beginning of the movement in this county to shift the club work from a pure-bred breeder basis partly to the basis of pork production."

How the influence of this pig club work spreads is shown by the statements by another agent, who says:

"My work with the pig club boys has shown me that the parent is about as much interested as the boys. As a result of my work in this line, I will say that a lot of farmers and their wives can be more readily reached through the club work, by reaching the boys, than any other way."

Calf Club Work.—Anoher important branch of livestock work with club members (which, by the way, is comparatively new here) is the dairy calf club work. Last year the South's first Jersey Calf Club was organized in Catawba County with a membership of 33, each member owning a pure-bred Jersey calf. The dairy calf club work is rather expensive, and especially where the members procure pure-bred calves. The average cost per animal is about $85 when purchased at an age of less

than six months. In this work the agents have selected the members as well as the calves. Local bankers have shown very hearty coöperation in putting on this work, and it is now well under way in three counties. By a careful selection of club members, taking only those who were in position to carry the project through successfully, not a single failure has resulted in this work.

DIVISION OF YEAR'S WORK

The program for club work is divided into four main divisions, each covering approximately one-fourth of the year:

I. Enrollment and Organization.
II. Instruction and Supervision.
III. Encampments and Tours.
IV. Fairs, Short Courses, Contests and Reports.

I. Enrollment and Organization

Enrollment.—In beginning club work in a community, the object and nature of the work is presented not only to the boys and girls, but also to the adults. After discussing the advantages of the work and telling the boys and girls what will be expected of them, an enrollment card is given to each boy and girl who is interested in becoming a member of the club. Before being allowed to become a club member, the boy or girl is required to fill out this card, in which he agrees to follow the agent's instructions in carrying on one or more club demonstrations, to keep an accurate record of his work to be turned in to the agent at the end of the year, and to pledge his loyalty to the club organization. Moreover, the prospective club member must secure from his parent or guardian permission to take up club work, a promise of moral support in the work, and the privilege of sharing in the money earned in the project. The application card for membership must be signed by the parent or guardian, also, signifying that these conditions are to obtain.

Organization.—Where as many as ten members in the same community send in membership cards properly filled out and countersigned by the parents or guardians, the members are called together for a meeting in which the club is organized with the following officers, elected by the members from their own number: a president, vice-president, and secretary-treasurer. The members then, in conference with the agent or agents in charge, appoint at least one adult leader, and where there are several members enrolled in two or more projects a separate leader is appointed for each group.

Reorganizing Old Clubs.—In a community where a live club organization already exists the active club members solicit new members. All applications for membership in the club are made on the enrollment cards. After the membership has been secured either by the reënrollment of old members or the addition of new members, the boys and

girls themselves, as a rule, reëlect officers. By this method many of the clubs are perpetuated year after year by the work of the boys and girls themselvs. Th enrollment of club members and the reorganization of clubs is usually done during the months of December, January, and February.

County Club Council.—The County Club Council is composed of the officers and local adult leaders of the clubs in the county. The club council holds meetings in the office of the county farm and home agent at least twice per year, and more often when necessary. At the first of these meetings the following officers are elected: a chairman, vice-chairman, and a secretary, who serve for the year.

II. INSTRUCTION AND SUPERVISION

Organized clubs hold regular meetings, as a rule, once a month. These meetings are attended by the county agents in charge, and a regular program, consisting of talks, essays, and demonstrations, with some social features, is carried out by the members of the club. Supplementary talks and demonstrations are given by the agent. In the instructional work generally subjects of seasonal interest are taken up, especially those which will be of use in carrying on the club projects during the month following the meeting. The meetings are held at the community center and during the school session at the school house, after school hours. Following the program the demonstrations are held. The club members, with the approval of the agent, rotate the meetings from one place to another through the community so as to give each member an opportunity to see what the other is doing. Letters, circulars, bulletins, and other helps are supplied to the club members for study in connection with their work. Personal supervision of the club members and giving them individual personal instruction, certainly in starting the work in a community, has been found well worth while.

One county agent says:

"It is important to organize early and use proper methods if good results are to be expected. Start the work at once in order to keep up interest. Do personal follow-up work. My experience has been that personal visits to members will bring more and better results than too many meetings and no personal visits. Of course, there is a limit of time in making personal visits."

III. ENCAMPMENTS AND TOURS

The County Club Encampment, held during the summer months, is now one of the permanent features of club work in North Carolina. The club encompment affords an opportunity for bringing the boys and girls together from the different parts of the county for wholesome entertainment, recreation, and inspiration. The encampments are held during the season of the year in which the boys and girls in the rural communities are least engaged in farm work. Practically all encamp-

ments are held jointly by the county and home agents for both boys and girls.

Selection of Location.—Sites for encampments are selected with care. They are held at places that will entail the least expense in equipment and at the same time afford the greatest opportunities for carrying out the work.

Joint Encampments.—In a number of instances two, three, or four counties hold their encampments together, especially where this can be done without taking it so far from the homes of the club members as to cause a bad effect on the home county or to make it inconvenient for some boys and girls of limited means to attend. It is thought that encampments held at a central point in the county do more to open the eyes and hearts of the local people to see the value of club work than perhaps any other thing in connection with the whole club program. Only club members who have started their projects and present a record for the work done, satisfactory to the agent in charge, at the time the encampment convenes, are allowed to attend the encampment. This rule is not always rigidly enforced with counties just going into the work, but this is a goal towards which we are working. Others are permitted to attend as visitors. One or more days and perhaps one evening meeting are arranged for visitors, and special programs put on for their entertainment.

A Tug of War

At club encampments both games and exercise receive attention along with the studies.

Type of Instruction.—All instructional work in the camp is of a very practical nature. The program for the boys in nearly all cases involves lively contests and demonstrations. Some of the subjects used are: the identification of common cereal, legume and grass plants and seeds; candling, grading and packing eggs for the market; tying the different knots and making rope halters; the selection, judging, and fitting of livestock for the show ring; constructing modern poultry houses, hog houses, self-feeders, and seed corn racks; treating seed for insect and disease control, and using the farm level. The one point characterizing the camp program for all club members is that every subject is chosen because of its educational value, and the work is applied to the community in which the camp is held.

Value of Encampments.—The encampment is the one big social feature in connection with club work. The outing, rest, recreational, and spiritual phases of this work open up in the minds of club members new avenues of opportunity for wholesome entertainment in the rural communities. A large number of parents and interested friends visit the camp during the week. The chairman of the County Club Council, as a rule, presides, and much of the program is furnished by the club members themselves, assisted by local talent. One agent in reporting on this point says:

"Following the supper each evening a vesper service was held on a grassy plot beneath an old apple tree, at which every member of the camp was always present. Some of the visitors present listened in one evening on the vesper service conducted by the boys and girls and later stated that the vesper services were the most inspiring they had ever witnessed. These visitors stated that this part of the program alone would justify the holding of an encampment."

Club Tours.—The practice of taking club members in large groups upon trips to distant parts of the State, and even on tours visiting the different demonstrations in the county, is becoming more and more popular in North Carolina. In some instances the club tour supplants the club encampment, while in others it is held either in connection with or in addition to the encampment. The points visited by club members on tours are usually those selected because of their special interest and educational value. Some of the points visited by club parties during the past summer were the Piedmont Branch Experiment Station, Sandhills peach orchard section, dairy farms in central and western parts of the State, the Biltmore estate, Morehead City, Mount Mitchell, the State College of Agriculture and Engineering, and many others.

Club Rally Days.—The practice of holding a club day or club rally day in the county is coming more and more into use. The general purpose of holding this event is to show the club members as a whole and the public generally the results of club work obtained during the year. In connection with meetings of this kind, exhibits of well selected club products, representing the different lines of work, are brought in to the

courthouse, or some centrally located place in the county, for the day. It is the date for arousing more interest in the club work and giving the members renewed ambition to do better work themselves and to solicit more of their fellows to take up the work. The prize winners and the list of those eligible to wear the club emblem are announced and the awards merited in the work during the year are presented at the club rally exercises.

IV. Fairs, Short Course, Contests and Reports

It has been said that the fair is to the county agent what the show window is to the merchant. This is certainly true as regards club work. In connection with the community, county, district, and State fairs, club members have had a large part during the past year. In about three-fourths of the fairs special classes were created for exhibits of products produced in club work. In other fairs club members were permitted to exhibit in open classes, competing with the adults, and by aid of the special training in the club work, in the selection and preparation of exhibition material and their knowledge of standardization, the boys and girls, as a rule, have an advantage over the adult exhibitors.

State Club Short Course.—For the second time, through the courtesy of the administration of the State College of Agriculture and the State Fair Association, we were able to hold a State-wide Agricultural Club Short Course in Raleigh during the week of the State Fair, October 15-20, inclusive. In coöperation with the Fair Association administration we staged contests in (1) livestock judging, (2) plant identification and seed judging, (3) demonstrations, and (4) exhibits, which formed an important part of the program for the short course. Aside from these features, club members attending the short course were given physical training under special instructors, and lectures by outstanding men and women from the college and city. Special programs were arranged for the evening entertainments by the College Y. M. C. A.

State Livestock Judging Contest.—For the State Livestock Judging Contest the contestants had been selected in county elimination contests in which large numbers of club members worked for a place on the judging teams. In these local county contests the club members judged either in connection with community and county fairs or on tours through the county, in which they visited outstanding flocks and herds from which classes of animals were formed for them to place and to write the reasons for their placements. Only a limited number of them came to enter the State contest, but the training and experience gained in these local county contests in which the contestants were selected to enter the State-wide event enabled many to benefit by this work. Large numbers of boys gained experience in study of quality and value in livestocks that will be of permanent value to them.

Livestock Judged.—In the State contest the club members judged one class of each: horses, beef cattle, dairy cattle, sheep, swine, and poultry. This gave the contestants an opportunity not only to compete for liberal premiums, but also an opportunity to see some really worth-while livestock. The competition was very keen, and the scores made in their work were very creditable for all who participated.

Plant Identification and Seed Judging Contest.—The club members entering this contest had had less training and practice for this work than for that in connection with the livestock. A number of the agents trained club members in work put on in community and county fairs in their local communities and counties; nevertheless, the boys showed a splendid aptitude for this work, making the competition very keen. In this contest they were called upon to identify common cereal, legume and grass plants, and to judge a class each of the single-ear corn, prolific corn, wheat, oats, rye, alfalfa seed, clover seed, soybeans, cowpeas, and grass seed.

DEMONSTRATIONS AT SHORT COURSE

Demonstrations with Corn.—Three demonstrations with corn were given at the State-wide Agricultural Club Short Course. These demonstrations dealt with (1) seed-corn judging and storage, by two club members from Pamlico County; (2) factors influencing corn production, good and poor methods of soil preparation, with the resulting influence on the rise of capillary moisture, turning of vegetable matter and cultivation, by two club members from Yadkin County; and (3) seed breeding and legume rotations, by two club members from Gaston County.

Demonstrations with Irish Potatoes.—One demonstration team, consisting of two members from Swain County, gave demonstrations with Irish potatoes. Seed selection and potato grading, the value of hand grading for seed potatoes as a means of increasing the yield and improving the quality for potatoes were some of the points brought out.

Demonstrations with Dairy Calf.—Two demonstrations with dairy calf were given: (1) Selection and rearing the calf, by two boys from Gaston County, in which they showed the type of animal to look for in selecting a good dairy calf, the kinds of feedstuffs to use, the amount of each for the day's feed at different ages required by the calf, and the best methods for feeding and managing the calf; and (2) fitting for the show ring, showing and judging the dairy calf, by two boys from Rowan County. Points brought out in this demonstration were: Selecting the individual, breaking to lead by halter, blanketing to get hair and hide in condition; conditioning; showing in the ring; posing, moving; and the points to consider in judging dairy calves.

Demonstrations with Pigs.—Three demonstrations were given with pigs: (1) Swine equipment, by two boys from Halifax County, in which they showed the type of houses, self-feeders, water fountains,

troughs, common remedies for controlling lice and mange, and mineral mixtures for keeping the animals healthy; (2) judging swine, by two boys from Craven County, in which they showed the points to be considered in judging pigs; and (3) fitting swine for exhibition, by two club members from Moore County, in which they showed how to train animals for exhibition purposes, methods used in conditioning animals for the show ring, and how to manage a pig in the show ring to make him show off to the best advantage.

Demonstrations with Poultry.—Five demonstrations were given jointly by the Agricultural and Home Economics Club members. This work was given under the direct supervision of the Home Demonstration Division, by which it will be reported.

Exhibits.—The number of exhibits put on at the State Fair, with the exception of those in the poultry department, were not as numerous as they have been in the past. In the poultry department there were a large number of exhibits shown by club members. In this work the boys and girls competed successfully with the professionals, winning several hundred firsts and seconds. The transportation charges on pigs and calves amount in most instances to as much as the value of the premiums offered, and for this reason we have not succeeded in getting large exhibits in these classes of livestock. There were good exhibits in corn, cotton, potatoes, soybeans, and peanuts, but not nearly so large a number of exhibits in either class as we would like to have.

Future Plans for Short Course.—There are certain difficulties in connection with holding the State Short Course during the week of the State Fair. While it has the advantage of giving all club members in attendance an opportunity to participate in many of the contests, it, nevertheless, is at a season of the year in which many of the club members are in school, and many find it next to impossible to come to Raleigh. Plans are being perfected to hold the State Club Short Course at the State College for a week or ten days during July or August, in the future, and in connection with the short course program to put on State Club contests in which to select club members to return to give noncompetitive demonstrations during the State Fair. The one distinct advantage in this change of plan is that the college facilities will be available to take care of a larger number of club members than under the former arrangements when the short course was held during the college session. However, the contests held during the past year were very successful indeed, and attracted the attention of the thousands who visited the buildings and tents in which these were staged. Perhaps no other thing has been done which gave more publicity to the boys' and girls' club work in this State than the holding of these contests last year.

Other Contests in Fair Work.—A State Pig Club judging contest was staged in connection with the Sandhill Fair at Pinehurst, in which

eleven teams, consisting of three club members each, competed in judging four classes of swine. The best individual judge in this contest, Dermont Kearns of Randolph County, winning a free trip for himself and his county agent, E. S. Millsaps, Jr., to the National Club Congress held in connection with the International Livestock Show at Chicago, Ill. This contest was made possible and the premiums awarded largely by the Southern Berkshire Congress.

In a large number of counties teams of club members, under the direction of the agents, staged judging contests of livestock and seed and put on demonstrations dealing with different phases of their work, which did a great deal to acquaint the public generally with the work being done in the boys' and girls' Four-H Clubs.

PUBLICITY

After two issues of the *Tar Heel Club News,* a paper formerly designed for circulation to the club members and Extension agents in the State, and dealing solely with club activities, this paper was discontinued and the articles of club interest have been included in the *Extension Farm News,* which has been sent regularly to all club members. By enlarging the *Extension Farm News* so as to make it include the items of special interest to club members we have been able to give the boys and girls articles on a greater variety of subjects and at the same time to include just as large a number of articles which are of special interest to them.

How Distributed.—The *Extension Farm News,* in numbers sufficient to give one copy to each member and local adult leader of the club, is sent direct to the club secretary. The secretary delivers these to the club members and leaders at the regular club meetings, or earlier if convenient.

Other Publicity.—Items of interest, especially human interest stories of outstanding pieces of club work, are carried regularly in the local State and farm papers. These are prepared by the county agents and other extension workers. The coöperation of the press generally in assisting us in getting club work before the public has been unusually good.

DISTRIBUTION OF CLUB LITERATURE

All club literature for instructing the club members, such as bulletins, circulars, and letters intended for club members, is sent to the county agent and distributed to the clubs by him.

REPORTS

In the November meeting of the club the members and local adult leaders are urged to secure a complete report and short story or history of the work done, from each member, and these are to be summarized on

a blank furnished for the purpose and forwarded immediately to the agent in charge, so that the results may be included in the agent's annual report. In this part of the work the results have not been nearly what we would like to have, but the percentage of boys and girls in clubs making accurate and complete reports to the agents will in almost every county run higher than it will for the adult work. However, this has not and will not be our goal for getting reports from club members. "One must secure reports in order that the club members as well as the county agent may know what is being accomplished."

During the year ending November 30, 1923, the Assistant State Agent spent 191 days in office work, 107 days in field work, took 4 days sick leave, 4 days annual leave, and observed 7 holidays.

How Time Spent In Office Work Was Divided

Correspondence, reports, consultations, etc., 50%; publicity, 10%; plans, 15%; subject-matter, 12%; miscellaneous, 13%. The time spent in field work was as follows: organization work, 20 days; visiting crops and demonstrations, 6 days; attending committee meetings, 11 days; agents' conferences, 5 days; county club encampments, 11 days; other meetings, 9 days; fair work, 15 days; club rallies, 4 days; assisting agents in making plans and programs, 26 days; total, 107 days.

During the year 97 meetings were held with an attendance of 7,824; 71 farm and 25 home agents visited; 2,761 miles by auto and 5,905 miles by rail, or a total of 8,666 miles, were traveled; wrote 1,468 letters; received 2,565 letters; prepared 21 circulars, of which 3,485 copies were mailed out; prepared 37 articles, and held 470 office consultations.

Negro or Local Agents Reporting Club Work

Fifteen out of eighteen of the local agents and J. D. Wray, assistant in Club work, report club activities as a part of their regular program of work carried on in their respective counties during the past year. Those reporting are as follows: J. W. Jeffries, Alamance; J. A. Colson, Anson; J. C. Hubbard, Bertie; J. W. Mitchell, Columbus; E. C. Lackey, Forsyth; H. E. Webb, Guilford; D. D. Dupree, Greene; L. R. Sanders, Johnston; W. D. Brown, Hertford; Oliver Carter, Pitt; A. D. Herring, Harnett; I. D. L. Torrence, Mecklenburg; J. D. Carlton, Rowan; G. W. Herring, Sampson; L. H. Roberts, Wake, and J. D. Wray.

Plan of Organization

The plans for organization and administration of club work among the negro boys and girls do not differ materially from those used in white club work. The boys and girls are enrolled and organized in community clubs, have local adult leaders, and hold regular meetings in which a greater portion of the instruction for the work is given.

Local farm and home demonstration agents are not both generally found in the same county, and there is little joint work. However, in the agricultural clubs both boys and girls are enrolled.

J. D. Wray, assistant in club work, has devoted practically all of his time to negro boys' and girls' work in counties which do not have local agents. The counties selected for this work have been those in which there was a large negro population. His work has been done through community club organizations, the communities selected being those in which the people were especially interested and where local adult leaders could be secured to give some time in the supervision of the work. He has reached a large number of communities with this work that otherwise would not have benefitted materially by the Extension service. Moreover, he has given assistance in the preparation of plans and in the distribution of club literature for this branch of work in counties where the local agents handle the club activities.

With Wray's work, conducted in a large number of communities, it has been impractical for him to make more than one visit to each club per month. This has permitted him to give little of the personal supervision necessary for the most thorough work. Nevertheless, as shown by the results given in his report, much good has been accomplished. A full report of his work, covering each of the projects, is supplied herewith.

AGRICULTURAL CLUB DEMONSTRATIONS

There is one list of club projects in crops and livestock work from which all club members are permitted to select their demonstrations. The campaigns put on by local agents to induce their people to live at home seems to have influenced the juniors in the selection of their demonstrations.

RESULTS WITH CROPS

Corn.—The most popular project with the juniors is corn. The goal in this work has been a production of larger yields resulting from the adoption of practices that will build up the soils rather than deplete them.

INTRODUCTION OF GOOD SEED

The club boy has been required to use good seed in his acre of corn, and this has done much to introduce good seed on many farms for the first time. Teaching the value of thorough preparation of seedbed, proper fertilization, in many instances with home-mixed fertilizers, and of frequent shallow cultivation in the production of this crop has had its influence in the community and upon the boy who did the work. The results of these practices has meant larger acre-yields with lower cost of production. One local agent says:

"Even this year ten of our corn club members will have corn to sell, while few will have to buy any."

OTHER CROPS

Legumes.—Considerable work has been done with soybeans, cowpeas, and beans. The work with these crops has been carried on for the production of seed and hay. A large number of the members have been given stubble land, for which no rental was charged, upon which to grow a crop of hay.

Results in this work have been somewhat outstanding in convincing the people that they can grow good hay at home and save the money so generally invested in hay bought for farm animals.

RESULTS WITH LIVESTOCK PROJECTS

Poultry.—In the poultry demonstrations the goals have been to get purebred birds, with better housing and better feeding methods. Through this work with the juniors, the adults have been influenced to give more attention to the essentials in successful poultry production. The value of good breeding, good feeding, and good housing is beginning to be more generally appreciated. Poultry is becoming an important source of income on many of the farms.

Swine Work.—The best results in pig club work have been with the production of pork as a source of home-grown meat on the farm. Better feeding and care of swine as a means of securing more economic gains have been accomplished. The boys do not require expensive pure-bred stock in this work, as they use good grade animals with good results. There is much to be learned about the proper feeding and management of swine, which can better be taught in pork production as a means of preparation for the growing of pure-bred breeding stock. Some attention in this work has been given to the construction of hog houses and the general improvement of the quarters in which swine is kept, as well as to the growing of pasture crops.

Division of the Year's Work

The same general division of the year's work is used in all club work. The enrollment, organization, instruction and supervision are quite the same, and will not be discussed separately.

Tours and Club Days.—Taking club boys and girls on tours to visit good farms and to study conditions in livestock production, orcharding, and general farming has been quite generally done by the local agents. This work, so far as attempted, has met with a good degree of success. The tours have taken the place of encampments with the local agents.

Club Days.—Practically all local agents who had the junior work as a part of their program of activities have held at least one club day in

each county. In connection with some of these, exhibits of the crops and livestock work have been shown to large assemblies of their parents and interested friends. The club days, or club rallies, have done much to push the junior work among these people and to give leading citizens in the counties a better understanding and appreciation of the value of this work.

FAIRS, CONTESTS, AND REPORTS

In the negro community, county, and the State agricultural and industrial fairs the boys and girls have put on splendid exhibits. In many of the fairs the juniors have led the way in better selection and preparation of exhibits for fair work. At the State Negro Agricultural and Industrial Fair the club members from a large number of counties sent in exhibits of corn, peanuts, and poultry. The exhibits of corn shown by the club members were far better than those put on by the adults. Many of the exhibits would have been creditable in any fair in the State. The poultry exhibits were selected with care and were by far the best birds in the fair. The boys are giving more attention to the points indicating purity, quality, and standardization. They are learning to select and to judge as to what stands for quality and value in the various lines of their work.

So far no judging contests have been reported, but plans are under way to begin this work.

REPORTS

The percentage of reports on different demonstrations is not as large as we would like to have it; nevertheless, it is very creditable. The boys and girls report good yields of crops at a low production cost and a large number of pigs and poultry with good results.

The real value of the work of the local agents with boys and girls has come not so much from the net profit in money that has been earned with the different demonstrations as from the training and experience of permanent value, which has been given to these young folks. The boys and girls have been used as means for getting well selected pure-bred seed of the different crops and pure-bred poultry and many pure-bred animals of other classes of livestock distributed to a large number of farms that would not have had them but for this work with the juniors. A great deal has been done to improve the methods of farming and caring for livestock on these farms. The juniors are learning to field-select their seed, and many of the scrub varieties have been supplanted by good varieties with many of the crops. In the livestock work, especially with poultry, better methods of feeding and housing have been introduced and on many farms the

jay-bird crow breeds and mongrel stock have been replaced by a single breed of poultry. Eggs and broilers are becoming a source of revenue as a result of this work. The boys and girls take great interest in their work. They learn easily the new practices by using them. They take a great deal of pride in their crops and animals. This work should be encouraged.

Respectfully submitted,

S. J. Kirby,
Assistant State Agent.

REPORT OF THE DIVISION OF HOME DEMONSTRATION WORK

To the Director:

ORGANIZATION OF HOME DEMONSTRATION WORK IN COUNTIES

In 1923 fifty-four counties reported organized home demonstration work. These counties are divided into four districts, 15 in the mountain and piedmont, 14 in the central, 13 in the eastern, and 12 in the tidewater. In 1922 there were 53 counties organized, 1923 showing an increase of only one county. Had it been possible, however, to have secured State funds to meet county appropriations, three other counties would have been ready to organize the work.

In addition, home demonstration work for negroes was planned and carried out in six counties, a separate report of which is appended.

State Staffs

To organize and supervise home demonstration work in North Carolina and to instruct in subject-matter, the State agent has on her staff, in addition to the 54 county agents, an assistant State agent and four district agents, who act also as specialists in food, clothing, household planning, household beautification, and arts and crafts.

Through a coöperative arrangement with the Division of Animal Industry specialists are furnished in poultry, dairying, and the curing of meats. Through a similar agreement with the Division of Horticulture a specialist is furnished to do work in gardening and beautification of the farmstead. The Extension food and feed chemist, who is also nutrition specialist, is at the service of the home demonstration agents for consultation and instruction in agent's schools.

Changes in the Staff of County Home Agents

In the fourt districts 1923 has seen the following changes made in the supervision of county work:

Mountain and Piedmont District.—Mrs. Sarah P. Ellis was appointed home agent in Buncombe County January 1st, succeeding Mrs. A. R. Clement, resigned. Miss Hattie Neill was placed in Rutherford County August 1st, succeeding Miss Eva Logan, resigned. Miss Celeste Henkel of Iredell County resigned July 1st, and the appropriation will not be made again until July, 1924. The appropriation was discontinued July 1st in Wilkes County, but a reappropriation is expected July, 1924. Miss Jennie Whitaker, who was agent in Wilkes, was assigned work in Buncombe County as assistant to the home agent there. Miss

Elizabeth Cornelius returned to the State from Kentucky to take up work in Davidson County, succeeding Miss Gertrude Alexander, who resigned to go into commercial work. Mrs. Anna Lea Harris was transferred from Catawba to Richmond County, and an agent will be placed in Catawba in January.

Central District.—In Richmond County Mrs. Maggie Covington resigned February 28th, the position being filled July 16th by Mrs. Anna Lea Harris. In Rockingham County Mrs. Ethel Wells Moore resigned July 31st on account of ill health, and Mrs. Nora Johnson was appointed as a substitute August 27th, until Miss Keller, agent in Beaufort County, could be transferred to fill the position October 16th. Stanly County, which had withdrawn its appropriation in the fall of 1922, reappropriated in January, 1923, and Miss Marjorie Holmes was secured to fill the position, beginning work July 1st.

Eastern District.—Three counties in the district changed agents during the year. The Bladen County agent, Miss Mary Feimster, went to the schoolroom; the Wayne County agent, Miss Celeste McEachern, accepted a position as dietitian at Randall's Island, New York; and the Columbus County agent, Miss Lottie Kohler, opened a tea-room at Wilmington, N. C. To suppply these vacancies Miss Stella Rymer, a well trained and experienced woman, was placed in Bladen beginning work July 1st; Miss Janie Roberts, a former successful South Carolina agent, was appointed in Wayne January 1st, and Miss Lillie Lankford came to the Division of Home Demonstration Work from outstanding work done in Tennessee to fill the position in Columbus County November 1st, 1922. Duplin County appropriated for an agent in March, but on account of lack of State funds the appointment was deferred until October, when Miss Ruth Eborn accepted the position and began work. The boards of Lenoir and Wilson counties will be approached for funds as soon as the State can finance its part of the county home demonstration budget.

Tidewater District.—Bertie County appropriated in January, and Miss Addie Sue Harry was appointed to fill the position. In Northampton Miss Mattie Lee Cooley was appointed home demonstration agent to succeed Miss Nancy McLawhorn, who married and resigned January 1st. In Beaufort County Miss Violet Alexander was appointed to fill the position October 15th, after Miss Keller was transferred to Rockingham. January 1st, Miss Delano Wilson was transferred from Wilson to Washington County, which the Division was unable to supply with a suitable agent for several months.

Plan of Organization

To carry out plans of work, organization is necessary, and the woman's and girl's clubs organized in the rural community are an

excellent piece of machinery for the purpose. These organizations have a reasonably permanent membership and are in the nature of departmental clubs. Meetings are held monthly or fortnightly, and each member belongs to every department and takes part in the program of work provided for that department. This gives the home agent a chance to present systematic work in three or four projects in each club during each year and to measure the progress of her club members.

There are 620 girls' clubs and 501 women's clubs with a membership of 11,273 girls and 11,832 women. Of this membership, 7,728 women and 7,018 girls are reported as completing the year's work as outlined. In addition to the women's and girls' clubs are reported 156 community clubs with a membership of 7,166 men, women, and children.

The home demonstration agent of Craven County relates the following regarding her organization:

"The number of women's clubs in the county has grown from 8 with a membership of 82, at the time of my last year's report, to 11 with a membership of 136 in 1923. There are other places in the county where women's clubs should be started and where I believe the women are ready for them, and I hope to get these organized in the winter. The four-year outline of work prepared by our State office will be of great help to us in systematizing our work, and in all of the clubs I have advocated that committees be appointed to make out a year's schedule in advance, fixing the time, place, and subject of each meeting."

COUNTY COUNCILS

After clubs have been organized in a county the agent finds it necessary to bring together a council of women composed of representatives from each club or community. These women act as an advisory board, and meet with the agent once a month, or sometimes at longer intervals, to give reports of how the work is going and to help plan for further work. They appear before boards when appropriations are to be asked for, and answer any complaints of the work which may be brought up.

The experience they have had in conducting club meetings makes them very valuable assistants in planning community and county fairs, in arranging for marketing surplus products, and in helping to put over county-wide campaigns. They furnish a very capable group of leaders through which instruction in many projects is carried to the people of their communities.

The Tidewater District reports councils in 12 counties; the Eastern 10; the Central 10; and 13 in the Mountain and Piedmont District, making a total of 45 supporting bodies in 54 counties.

In addition to the women's county councils, the club girls in three counties have formed junior councils, and they are being watched with interest as to developments.

Miss Creighton, agent in the Mountain and Piedmont District, says:

"Thirteen out of 15 of my counties have councils. Four of these were organized this year, and these organizations are most active in supporting and pushing home demonstration work. It might be interesting to note that the two counties in which home demonstration work was discontinued had no councils. I feel that a strong organization, such as the other counties have, might have prevented this. In both of these counties a number of women did what they could to reinstate the work, but they lacked the force which an organized body possesses."

The Tidewater District agent says:

"The organization of county councils was one of the projects we pledged ourselves to carry out and we feel repaid for the effort, as we have increased the supporting bodies from 6 in 1922 to 15 in 1923 if we include the 3 girls' councils."

The Edgecombe County home agent says:

"The county council aroused interest in a stall market; helped the home agent promote county-wide poultry meetings in February and in September; helped start the home and school improvement campaign; held a county clean-up week; assisted in sending girls to the State short course; sent delegates to the State Home Bureau; and also representatives to the group grape product school."

The following comes from the agent in Halifax County:

"One organization of which I am proud in my county council. It is composed of all the officers of the different clubs and several of the club leaders. In the council we have four committees, namely: home economics, which plans programs, campaigns, and anything pertaining to this line of work; income earning, whose main work at present is the establishment of a curb market; civics, whose work is to plan for school, home, and public improvements; and health and recreation, a committee which plans and sets in motion health work, and devises means of entertainment and amusement. Each committee has its own chairman and secretary and makes its own report to the papers and at council meetings. An interesting part of one program was the inspection of the kitchen and lunch room in a school. The council sent delegates to the State Home Bureau assembled at the State College in August. I felt very much the necessity of having the girls' ideas and suggestions to help me solve a great many problems connected with their work and with the club encampment. I decided to try organizing a junior council, which met with the hearty approval of the girls. The first meeting was on September 22d, at Halifax, where we organized. We discussed in detail the outline of work for the girls' clubs leading towards a certificate. We also talked of the needs of different clubs, and the girls made suggestions. This council is composed of the officers of the girls' clubs in the county, and meets regularly, with the home demonstration agent to assist in making plans."

STATE HOME BUREAU—A STATE FEDERATION OF HOME DEMONSTRATION CLUBS

That the members of county councils may come together in conference, the necessity of a State organization was early seen by the members of the councils. To that effect in 1920 the State Federation of Home Demonstration Clubs was formed and given the name of the North Carolina Home Bureau. The first meeting was held at the Farmers' and Farm Women's Convention which convened at the State College of Agriculture and Engineering, Raleigh. The organization that year was represented by only 11 counties, and has grown in three years to a body representing 45 counties. Two accredited delegates were sent from each county council, but a great many members at large attended and the number present swelled to 300 rural women. The organization comprised the whole membership of the women's demonstration clubs in every county in which a council had been organized.

The program was arranged for two days. The first day was given over to business and reports from each council and plans of affiliation with the State Federation of Women's Clubs were discussed and arrangements made to carry them out. It was interesting to hear the eight rural women who appeared on the second day in a coöperative program put on by the Divisions of Horticulture, Markets, and the Division of Home Demonstration Work. These women were inexperienced as speakers, but they gave their work in home products and markets in a way which delighted the audience.

PROGRAM OF WORK—A FOUR-YEAR PLAN

The three main objectives of the State agent and her staff in 1923 were making and putting into operation a four-year plan of work, establishing and strengthening county councils in every organized county, and training a sufficient number of women and girl leaders to assist in carrying out the plan of work as outlined.

With machinery in the shape of home demonstration clubs for women and girls well distributed in the communities of each organized county, it seemed absolutely necessary to plan work sufficiently far ahead to insure well-rounded instruction in each project presented to the clubs. The State agent, therefore, conferred with the county agents regarding methods and results of work already in operation, and called into conference the assistant State agent, district agents, and specialists to plan for a four-year outline of work for the guidance of the home demonstration agent, that there be as nearly as possible a unified program of work for every county in North Carolina. The outline is as follows:

Food: Selection and preparation.
Meal planning.
Nutrition taught through two preceding subjects.
Preservation.
Household management.
Clothing: Plain sewing.
Dress design.
Millinery.
Household furnishings.
Gardening: Kitchen garden.
Landscape beautification.

Any other agricultural elective, usually poultry or dairy work.

ELECTIVES

Agricultural	*Arts and Crafts*
Gardening	Rug weaving
Poultry work	Basketry
Dairy work	Brooms
Bee work	Chair bottoming
Beautification of premises	Counterpanes, etc.

Instruction in arts and crafts is given either at special meetings or is done after the main work of the day has been finished and there is time for other work. These crafts are very popular and help to vitalize club work.

Outlines in food, clothing, household management, household furnishings, and arts and crafts were worked out in detail by the State agent, assistant State agent, and the district agents serving as specialists. The outlines of poultry and dairy work were made in coöperation with the Division of Animal Industry and its poultry and dairy specialists, and gardening and beautification of the farmstead was planned in a similar way with the Division of Horticulture through its Extension specialists.

Lesson sheets or bulletins covering the four years of work in all named projects have been prepared by Extension specialists for the use of club members.

CERTIFICATES

A certificate is issued to any club member completing the work outlined in any one project, and if she secures certificates in the six projects designated a diploma is awarded her. Definite requirements are made before a certificate is issued. For example, in a household management a club member should have completed the work outlined and must be able to show the following:

1. A kitchen arranged according to plans drawn and principles outlined.
2. Some of the conveniences which simplify the care of the house, and a knowledge of how to use them.
3. Some well done laundry work.

4. An account of household expenditures and a budget made therefrom.

Before receiving a certificate in preparation of food and meal planning, a club member should have completed the work outlined and be able to demonstrate satisfactorily the planning, preparing, and serving of a breakfast, a dinner, and a supper, and should understand the fundamentals of nutrition involved as well as the art of preparation.

A certificate in the preservation of food is issued to the club member who has completed the work outlined and is skillful in the use both of the hot-water and steam-pressure canner. She must be able to demonstrate successfully the canning of fruits, vegetables, and meats, and the making of jelly, jam, preserves, and pickle, and understand the principles of sterilization.

It would take too much time to give requirements in other projects, but all are equally practical.

A certificate or a diploma does not mean the recipient is in any way a finished product in home-making, but it does show that she is able to do the required practices well, knows what methods to pursue, and understands the principles underlying them. It indicates, also, to the home agent that, given the qualities of leadership, the winner of a certificate has the information and experience to fit her for the job of demonstrating certain practices to her club mates and helping out with the club program.

METHODS

The methods of instruction are those that have been tried and proven successful in the counties.

Plans are so arranged that the major part of the instruction is given by the home agent and specialist, as will always be the case where organized work is done; but as women and girl leaders have gained experience in giving demonstrations they have become more and more valunable as assistants to the agent. Plans for the demonstration of certain practices are, therefore, outlined in each project, that club leaders may take the responsibility of conducting a club meeting in the absence of the agent.

For example, twelve lessons in household furnishings are so arranged that the first, third, fifth, seventh, ninth, and eleventh lessons setting forth the principles of interior decoration are handled by the agent or specialist. The other six are practical demonstrations applying the principles taught, and are easily left to the leader. The agent presents to a club, color and how one reacts to it. The next work is a demonstration by the club leader of mechanical aids to color harmony; the making of a color chart and how to use it; or a demonstration in home dyeing. Should the agent present selection and arrangement of furniture, the leader's part is to give a demonstration in refinishing or painting an old piece. The leader's own home is frequently a fine example of good

planning and artistic arrangement, and is used as a demonstration center. Club members learn readily from the leader's practical demonstration, and frequently come with finished products for the inspection of the agent at her next visit.

State Short Course for Club Girls

In planning the number of leaders she will need for the proposed projects to be undertaken during the year, the home agent keeps a watchful eye on the developing club girl and tries to plan to send an adequate quota to the State short course for club leaders held each year at Raleigh There is no way as yet of financing these trips from State funds, and the responsibility falls on the individual or the people of the county. Civic organizations, both men and women, boards of commissioners, and boards of education, banks, and public-spirited citizens all have very generously provided for from two to fifteen girls from a county, though a few counties have had no representation as yet. The Kiwanis Club of Charlotte sent 15 girl leaders as its guests in 1923, and the County Home Demonstration Council of Cumberland sent 15 with money it had raised for the purpose.

There were 175 girls at the 1923 short course, representing 30 counties. The faculty consisted of the assistant State home demonstration agent, who was dean of the school, and four district agents, who were also specialists' and eight county agents. The State agent and her staff, with suggestions from the county agents, arranged the program of work and decided that the following definite practices should be taught:

1. Jelly-making.
2. Canning.
3. Clothing.
4. Testing and knowing textiles.

No girl could enroll for more than two subjects, but all were expected to take part in the recreation provided and learn how to carry it back to their clubmates.

Each girl was required to give a demonstration in both of her projects, and the subject-matter and method of presenting it were closely criticized by the specialists.

The Piedmont District agent says:

"I assisted with the girls' State short course held at Peace Institute, Raleigh. The school lasted five days, with 175 girls attending from the mountains to the coast. They were very fine girls, most of them being prize winners in contests held in their county. Catawba County sent 12 girls in a school truck. On one side of the truck was a huge sign, 'Catawba County Bread Makers.' They created quite a sensation coming through the streets of Raleigh. Mecklenburg County sent 15 bread makers.

"I had charge of the clothing work, for which I outlined a course. There were five other agents assisting. We had to divide them into three sections of about 50 each, with two teachers to a section. For two days we gave them

a course in textiles and drilled them on tests for same, and on identifiying standard textiles. The other two days were devoted to line, design, etc. On the last day the girls had a test to see how many standard textiles they could identify. Fifteen gingham dresses were donated by two of the big mills of the State and these were given to the girls making the highest mark on the test. They had studied hard, and those girls who won the dresses were most happy."

One of the instructors in canning and jelly-making says:

"The first day a demonstration in canning was given to the girls, and the rest of the week the girls themselves gave a similar demonstration each day. It was an inspiration to see how well they conducted their demonstrations.

"The afternoons and evenings were given over to recreation directed by the Eastern District agent and her assistants. Trips to the movies, shopping, and sightseeing were planned for the afternoons, and in the evenings games, songs and story-telling filled the time until light bell. One evening the girls had as guests the presidents of the Raleigh civic organizations, when a little amateur play based on the clothing budget was given by several of the girls. It was quite clever and well gotten up. Friday night was stunt night."

SUPERVISORY PROGRAM

MAINTENANCE AND TRAINING OF PERSONNEL

That a knowledge of subject-matter may be thorough, instruction uniform, and methods of instructing leaders approved, the 54 home agents in North Carolina, with the district agents and specialists, are brought together each year in a two weeks school and conference conducted by the State home agent.

The three first hours of the work-day are given over to instruction in the major subject to be presented during the year. In 1923 it was house planning and furnishing, and the time was spent in lecture and laboratory work. This course was taught by Miss Wilkerson, Extension specialist of the University of Illinois.

Mr. F. E. McCall, specialist, gave seven lecture and demonstration periods of one hour each in landscape designing.

One hour and a half each day was given over to an agents' conference on administrative matters, when the State agent presided, and it was there that plains were discussed, methods and results analyzed, and plans made for future work.

Each agent attending the short course was required to give a demonstration or a practice which she was teaching her leaders to give. Two classrooms were used and the agents divided into two sections, each of which acted as a group of rural women or girl leaders to which the selected agent was presenting her subject. One would expect a demonstration agent to score rather well in the art of demonstrating, and they did not disappoint. It was interesting to note the sure touch, the simplicity of equipment, the use of descriptive rather than technical terms, and the plain, convincing English of the experienced field worker in contrast to

the more elaborate equipment, the classroom type of instruction, and the technical terms used by the less experienced woman.

These demonstrations included twenty-one of the practices which the rural housewife is commonly called upon to perform:

1. FOOD: a. Yeast bread from North Carolina soft wheat flour.
   b. Biscuits from soft North Carolina wheat flour.
   c. Corn-meal batter-breads.
   d. Vegetable cookery.
   e. Cream soups and milk cookery.
   f. Meat cookery { steam pressure / fireless }
   g. Salads.
   h. Meal planning.
   i. Cake making.
   j. Candy making.

2. CLOTHING: a. Drafting princess slip pattern.
   b. Making dress form.
   c. Short cuts in sewing.
   d. Line and design in dress.
   e. Color in costume.
   f. Testing textiles.

3. POULTRY: Culling flock for egg production.
   Home-made equipment.
   Caponizing.

4. ORGANIZING A COMMUNITY CLUB.

5. PRESENTING RECREATIONAL FEATURES.

Nothing in the whole course was of more benefit to the agents than getting each other's methods of presenting a subject and noting where their own might be improved. It gave the specialists, also, a very clear idea of just how their teachings were being carried to the people, and provided the State staff with a list of good demonstrators in definite lines who might be used to assist specialists. These demonstrations by agents tend to standardize methods as nothing else can and give the inexperienced a vision of the very practical work demanded in presenting a subject to the women and girls of the rural districts.

Each agent was graded on her demonstration, and a criticism of her methods and subject-matter was sent to her. The State agent, assistant, and four district agents acted as judges. The specialists who gave the courses in household furnishings and landscape design were also asked to grade each agent.

SHORT COURSE FOR AGENTS AT STATE COLLEGE

Plans are outlined by the State College of Agriculture and Engineering and the Division of Home Demonstration Work to arrange for a six weeks short course each year for a certain number of home demonstration agents who are desirous of improving their professional stand-

ing. This course provides both home economics and agriculture, as well as other collegiate courses.

FIELD TRAINING

That new agents may have an opportunity of seeing work done in the field before taking a supervisory position in the county, it is the policy of the State home demonstration agent to give these women an apprenticeship with a well trained and experienced agent. In 1923 Mrs. Ellis, home agent in Buncombe County, was placed for one month in Rowan, where she had an opportunity to visit clubs in the county with the home agent and to see club meetings conducted. In June and July an experienced agent was placed as a substitute in Rutherford County pending the arrival of the new agent there. She remained to install her successor and to introduce her to the field work. This has been of inestimable value to the new agent.

ANNUAL CONFERENCE OF HOME AND FARM AGENTS

That agents might plan for the work of the coming year, the home and farm district agents conferred with their county agents in December regarding plans of work. Each agent made her outline for home economics work with women and girls and, after consulting with the farm agent, together they planned for coöperative work. Particularly effective was the work of the eastern farm and home district agents, who visited together each farm and home agent in the district, calling them in consultation for the outlines of coöperative work for 1923. In December of 1922 all home and farm agents were called to Raleigh for a conference on plans, and each team of agents made a statement before the group of just what the coöperative plans embraced in its county. The meeting was a most inspiring one, and each agent who did not before have the coöperative spirit went back determined to correlate as far as possible his or her work with the other Extension agents in the county.

The district agents report that each of the agents in the 54 counties made plans of work, submitting them by January 1st, and that they have on the whole been well carried out. Even in counties where there was a change of agent, the plans made by the previous agent were very well followed and a break in the work was avoided. The full report of each project shows how each county held to its original plan and the results that it accomplished.

STATE AGENT'S STAFF CONFERENCES

On the second Monday of each month the district home demonstration agents are called into the office of the State home agent, for a conference. The status of the work is discussed; just how well the home agent is carrying out plans; the effectiveness of her methods;

the sentiment of the people regarding her work; the state of county finances; office administration; suggested changes in county force, etc.

DIRECTOR'S STAFF CONFERENCES

On the next day, Tuesday, the farm and home district agents, together with the State agent and assistants, are called into conference with the director. Policies and plans are there discussed and the progress of coöperative work noted. These monthly meetings are productive of the finest spirit among the workers and have done much to further close coöperation.

STATE AGENT'S SUPERVISORY VISITS

In 1923 the State agent visited 16 counties for the purpose of conferring with the agent and her county council; assisted in subject-matter instruction, and spoke to audiences drawn from all parts of the county on what home demonstration work means to a county.

It is during these visits as well as at the annual State conference and school for agents that the State agent has an opportunity to see the county agent individually and get at first hand her plans of work; to see how she is established professionally and socially in her territory, and to learn what is on her heart and mind regarding the organization.

STATE MEETINGS

The State home agent has taken part in the following State meetings:

Helped conduct the annual meeting of home and farm agents.

Helped conduct the annual meeting of negro home and farm agents.

Conducted annual school and conference for home agents.

Conducted annual meeting of State Home Bureau.

Helped the assistant agent with annual short course for girls.

Spoke before Southeastern Section of American Federation of Women's Clubs on Coöperation with Home Demonstration Work.

Spoke before State Federation of Women's Clubs on Coöperation with Home Demonstration Work.

Conducted Home Makers' Section of State Home Economics Association.

Spoke at annual meeting of negro Smith-Hughes teachers on Cooperation with Negro Home Demonstration Agents.

Conducted Home Economics Section of State Education Association.

Spoke at State College of Agriculture and Engineering Summer School on Home Demonstration Work.

OUT-OF-STATE MEETINGS

The State home agent has taken part in the following out-of-State meetings:

Attended annual convention of The Association of Land Grant Colleges held in Washington. Took part in discussions in Home Economics Section.

Attended annual meeting of Southern Section of Extension Workers, Memphis, Tenn. Spoke on The Part Home Demonstration Work Plays in the Extension Program and on Curb Markets as Carried on by Home Demonstration Clubs in the South. Was appointed on committee to suggest revision of annual report form.

Met with the committee on report forms in Washington, where the report on recommended changes was submitted.

Visited University of Georgia and University of Tennessee at the invitation of the Division of Extension of those institutions to speak at meetings of farmers and farm women.

STATE AGENT'S STATISTICS

Number of agents visited	16
Number conferences	658
Number meetings attended	147
Attendance at meetings	20,781
Number miles traveled	7,109
Number letters written	1,697
Number circulars	1,389
Number articles published	32
Number office days	200½
Number field days	72½

ASSISTANT STATE AND DISTRICT AGENTS' STATISTICS

Number of agents visited	407
Number conferences	4,541
Number meetings attended	999
Attendance at meetings	98,414
Number miles traveled	46,842
Number letters written	5,558
Number circulars	12,091

The district agents report 282 visits to county agents, when records were inspected, office equipment looked over, travel and office expense noted, and note taken of the needs of the agents. These visits also include installing 15 new agents, visits to the county superintendent of education, conferences with the farm agent and the women's clubs of the county.

OFFICE RECORDS

Each county agent has a record book in which are placed plans of work and records. Weekly reports are filed as well as the annual

reports, and these are left for the information of a new agent should she be placed in a county.

Office Organization

Clerical help has been provided by the county boards in 15 counties and 45 agents have their offices in the courthouse. The county has furnished the office of the agent in a simple or more elaborate way with desk, bookcases or shelves, filing cases, and some equipment for demonstrations. The county councils have been generous in furnishing oil stoves and canners, and the schools of the county have furnished in many communities home economics laboratories, that demonstrations may be given to clubs.

The Piedmont District agent says:

"Seven of my counties had clerical help in their offices this year, and the office organization was very good. In counties where there is no clerical help efficiency varies according to the system of the agent. Some of them manage very well without help, though they are forced to work overtime to do it, and others give it up as hopeless. With the amount of record keeping, reports, and correspondence which has become a part of the work, clerical help is an absolute necessity. There is no way of taking care of this matter through State funds, and it must be arranged through the generosity of local boards. Promptness in reporting has been materially improved in my district of late because of a special effort along this line. Along with promptness has come a marked improvement in the type of reports made.

"The office equipment in all of the 13 counties in my district is very good. Where there is clerical help it is best. All of the agents own some type of equipment for giving demonstrations, and 8 of them were furnished with demonstration funds to cover the cost of supplies and equipment."

Publicity

In North Carolina there are ten morning daily papers, twenty-nine afternoon dailies, one hundred and sixty-four weeklies, and twenty-eight semi-weekly or thrice-a-week papers. From such figures as we are able to secure, the combined circulation of these papers is about one million and a half subscribers.

The workers of the Home Demonstration Division prepare short informative articles that are sent to the weekly press by the Division of Publications with the regular batch of news material Thursday of each week. From surveys made by the Division of Publications, at least 80 per cent of the weekly papers use the material furnished them. The agricultural editor reports that the articles on home demonstration work are always very popular with the editors, and practically every article is used in its entirety by these papers.

To the daily press the Division of Publications sends out mostly news material about the work of the Home Demonstration Division.

This is handled through a mail service by the local Associated Press office, and coming from an organization of the press is used in every paper in which it is released. In addition to this, reporters from local papers come to the office of Home Demonstration Work from time to time during each week and secure short, intimate stories about the work of the division. These are in addition to feature stories which are prepared by the agricultural editor for special Sunday editions and Monday farm pages of the larger morning dailies. The official organ of the Extension Service, *Extension Farm News,* always carries articles each month about the work of the Home Demonstration Division.

It is felt that the work of this division is being placed before the public in a very satisfactory way, and we cannot help but feel flattered by the cordial response on the part of the press to the articles furnished them about this work.

The number of articles written by home agents or taken from material supplied by them and published in local papers is reported as 1,934.

The district agents prepare monthly a résumé of the work of the county agents, including human interest stories and these are published by the papers either in their entirety or selections are made which apply to certain localities.

The State home demonstration agent has written 32 articles for the press which have been accepted and printed. These range from stories of the work of the organization, subject-matter articles, timely suggestions, human interest stories, to articles on North Carolina products and how they may be utilized.

PUBLICATIONS

In 1923 the third reprint of Jelly, Jam, and Pickles, by Jane S. McKimmon and Cornelia C. Morris, was made. In addition to this, the following were prepared for publication and will be printed after January first:

Four-Year Outline of Work. *Jane S. McKimmon.*

Five Lessons in Preparation of Food for North Carolina Home Demonstration Club Girls, First Year. *Cornelia C. Morris.*

Five Lessons in Preparation of Food for North Carolina Home Demonstration Club Girls, Second Year. *Cornelia C. Morris.*

Ten Lessons in Food Preparation and Meal Planning for North Carolina Home Demonstration Club Women. *Cornelia C. Morris.*

The following subject-matter instruction has been issued in mimeograph form:

Twelve Lessons in Household Furnishing. *Martha Creighton.*

Instructions in Arts and Crafts. *Pauline Smith.*

Score-Card for Improvement of Kitchen.
Score-Card for Beautification of Premises.
Recipes for Vegetable Cookery.
Recipes for Bread, Biscuits, and Pastries.
Recipes for Sweet Potato Dishes.
Recipes for Christmas Candies.

COUNTY AGENTS' STATISTICS

To carry on the work the following has been done:

Number of communities in which the Extension program has been coöperatively worked out by Extension agents and people concerned	936
Number voluntary county, community, or local leaders actively engaged in forwarding the Extension program:	
(a) Adult work	Men, 32; Women, 1,042
(b) Junior work	Boys, 20; Girls, 589
Number of different homes visited	11,387
Number of office calls relating to Extension work	43,319
Number of days spent in office	3,762
Number of days spent in field	10,360
Number of individual letters written	52,494
Number of different circular-letters prepared and sent out (copies)	6,450
Number of community buildings established	10
Number of rest rooms provided for use of rural people	17

		Men	Boys	Women	Girls	Boys and Girls	Community	
22. Training meetings* held for local leaders	(*a*) Number			303	328	85	168	**22**
	(*b*) Attendance			6,425	6,481	1,586	11,176	
23. Demonstration meetings held	(*a*) Number	26	54	5,126	4,748	505	1,144	**23**
	(*b*) Attendance	278	201	116,570	81,900	19,338	100,873	
24. Farmers' institutes* held	(*a*) Number						8	**24**
	(*b*) Attendance						1,053	
25. Extension school* and short courses held	(*a*) Number	1	1	28	20	15	17	**25**
	(*b*) Attendance			1,545	1,088	941	6,454	

26. Junior club encampments and rallies held

(*a*) Number	48	Boys		26
		Visitors	5,617	
(*b*) Attendance by club members		Boys	1,628	
		Girls	2,819	
(*c*) Total attendance			10,064	

27. Other extension meetings attended by agent and not previously reported

(*a*) Number	1,467	27
(*b*) Attendance	199,925	

28. Number of meetings at which were shown

(*a*) Lantern slides	23	28
(*b*) Motion pictures	64	

34. Number of demonstration teams trained

(*a*) Boys	8	34
(*b*) Girls	111	

35. Number of members completing in club work†

	Men	Boys	Women	Girls
(*a*) One year	82	365	3,260	4,677
(*b*) Two years			1,704	1,194
(*c*) Three years			1,518	697
(*d*) Four years			1,246	450
Total	82	365	7,728	7,018

36. Number entering college this year as result of club work

(*a*) Boys	20	36
(*b*) Girls	53	

37. Number of junior judging teams trained

(*a*) Boys	2	37
(*b*) Girls	54	

COÖPERATION WITH SMITH-HUGHES WORK IN HOME ECONOMICS

So clearly to be seen is the good to come from close coöperation between Smith-Hughes and Smith-Lever home economics workers that as the senior State worker I invited three years ago the State supervisor of vocational home economics and the head of the department of home economics at the State College for Women to come to my office for a conference. We worked out at that time plans which kept us from duplicating work, and the yearly conferences we have since held have made possible an adjustment of details and a start toward coöperative projects which bring us together, strengthened by mutual support.

During the home improvement campaign which has just been completed in Mecklenburg County the Smith-Hughes State supervisor saw a fine opportunity of correlating work and suggested that when similar campaigns were held she should have her Smith-Hughes teachers give instruction in household furnishings to the rural high school home economics classes at the same time. This would necessitate planning ahead of time by the heads of divisions and would furnish a great opportunity for enlarging the outlook of both branches of home economics.

The systematic training of girls in home demonstration work has led them straight to the door of the home economics department of the rural high school. Each home agent has encouraged a club girl to go where she can get more of what home demonstration work has so well begun, and we get most encouraging reports from the Smith-Hughes teachers of their deftness in manipulation and their ability to go forward quickly. Two years in the high school sends them either to college or back to us as well equipped leaders, and it is to these leaders and their influence on the communities that we are depending for the enlargement of the people's vision and the consequent advancement of the State in its work for the betterment of the home.

COÖPERATION WITH SUPERVISOR OF SCHOOLS FOR ADULT ILLITERATES

After a conference of the State home demonstration agent and the supervisor of schools for adult illiterates it was planned for the Buncombe County Department of Education to employ a teacher for seven months in the year and for the Division of Home Demonstration Work to employ her for four months; both departments to do work with women in primary instruction. A text-book was gotten out coöperatively, containing home demonstration recipes which were translated into the simplest possible language by the county supervisor of education. After using these recipes and directions as exercises in reading and writing, the women of the communities were ready to put them into practice when the home demonstration agent came to them in September. The Division of Home Demonstration Work was fortunate to transfer a worker from another county and make her the assistant of the Buncombe County home demonstration agent. These two planned work to

cover the following projects: Canning, vegetable cookery, meat cookery, quick breads and yeast breads, cake making, and something in meal planning and school lunches.

The Buncombe County agent says of her assistant:

"Miss Whitaker has been meeting each of her clubs once a week, and has been able to cover all of the ground which we had planned for her. She works with women in four different districts, with a total enrollment of 63. These clubs have been meeting at some one home in each district, and if for any reason a woman has to miss the club in her own district she comes another day to a meeting in an adjoining district in order that she may not miss any of the instruction. In the mornings Miss Whitaker has been doing work with smaller groups of women in the homes up in the coves, where the women have too many small children or live too far to come to the regular meetings. On three mornings of the week she has been teaching groups of three or four neighbors in their homes.

"The experiment of appointing an assistant home demonstration agent for this mountain county has, I think, been a very successful one."

PROJECT ACTIVITIES AND RESULTS

Food Work—Preparation, Nutrition and Conservation

Part of the fundamental instruction given by the Division of Home Demonstration Work is that planned for and carried out in nutrition, and preparation and conservation of food. Food work was part of the program in each one of the 54 organized counties in North Carolina, results being reported by 8,682 women and 10,385 girls.

FOODS AND NUTRITION

Report only *results* of Extension activities that are supported by *records*.

		Completing		
230. 1. Number of members enrolled in food and nutrition work	(*a*) Women	8,682	9,367	**230.1**
	(*b*) Girls	10,385	11,194	

FOOD SELECTION

Item	Women	Girls	
230. Number of result demonstrations started or under way	3,746	2,447	230
231. Number of such demonstrations completed or carried through the year	3,013	2,231	231
231.1. Number of method demonstrations	2,822	2,014	**231.1**
232. Total* number of homes influenced by extension service to serve better selected food (include demonstrators)	10,433	4,465	232
233. Number of homes using more fruits in the diet	7,687	2,777	233
234. Number of homes using more green vegetables in the diet	11,896	2,798	234
235. Number of homes using more milk and other dairy products in the diet	10,316	2,472	235
237. Number of homes using more poultry products in the diet	4,303	1,846	237
238. Number of homes using more unrefined cereal products in the diet	1,383	530	238

Under food selection the number of result demonstrations completed and carried through the year was reported as 3,013 women and 2,231 girls. This means that women and girls have learned how to use fruits and green vegetables in the diet, the value of more milk and other dairy products, and the value of poultry and poultry products, as well as of unrefined cereals in the proper planning of meals for the family.

FOOD PREPARATION

Item	(a) Breadmaking		(b) Meal preparation		(c) School lunches		(d) Other†		
	Women	Girls	Women	Girls	Women	Girls	Women	Girls	
239 (242b). Number of results demonstrations started or under way	4,190	7,977	2,875	1,474	781	656	894	493	239 (242b)
240 (243b). Number of such demonstrations completed or carried through the year	3,696	5,469	2,645	1,170	422	252	735	382	240 (243b)
245. Number* of homes influenced by home demonstration work to adopt better practices relative to food preparation (include demonstrators)	7,397	4,922	3,850	2,151	1,928	2,424	1,618	711	245
245.1. Number of schools influenced by home demonstration work to adopt better practices relative to food preparation (include demonstrators)	559	709	172	518	311	94	38	188	**245.1**

CHILD FEEDING AND CARE

Item	Women	Girls	
247. Number of result demonstrations started or under way	1,067	247	247
248. Number of such demonstrations completed or carried through the year	465	133	248
250. Number* of homes influenced by home demonstration work to change practices in child feeding and care (include demonstrators)	5,977	68	250
251. Number of children involved in question 250		17,920	2 51

In food preparation 3,696 women and 5,469 girls report completing demonstrations in bread-making; 2,645 women and 1,170 girls in meal planning; and 422 women and 252 girls in school lunches. In child feeding and care the number of demonstrations completed or carried through the year by women are 465 and the number of homes influenced by home demonstration work to change the practice in child feeding and care are 6,045. The figures given indicate the number of women and girls who are enough interested to come to club meetings and get the instruction in nutrition and food preparation, but they can in no way indicate what this instruction means in the life and well-being of the family.

STORIES OF FOOD WORK

The Cumberland County home agent says:

"In our food preparation work with girls during the school term our plan was to visit clubs, give demonstrations and mail the lesson sheet monthly to each member. After doing the work, these club members reported on a card which we enclosed for this purpose. We were able to carry on this work successfully during the school term, but had to discontinue during the summer months when the girls were busy with farm work and could not attend meetings regularly. In our work we studied the preparation of milk and egg dishes, cereals, potatoes, and desserts. Interest on the part of the girls was far beyond our expectations, and 258 of them reported promptly on their progress and results. During the summer months we had vegetable cookery and began our bread work, the girls and women for the most part meeting jointly.

" 'Better Bread' for the homes of Cumberland County was the goal we set for ourselves the first year, and we have never done a work we found more interesting in all our years of Extension service—interesting to us and interesting to our club members. Our plan was to give the method demonstration at the club meeting, devoting more than one meeting to the subject if it seemed necessary, as it did in some communities. Members brought their bread to the next meeting and gave their experiences in making it. At this meeting we explained the bread score-card fully and had them do the scoring.

"Interest in bread-making in girls' clubs culminated in our county team winning first place in the district contest. This gave us the honor of representing the district in a State-wide bread-making contest held at the State Fair. Our team won only third place in this contest, but as it was our first effort along this line we were not disappointed. The trip to the State Fair was a wonderful experience to the two girls composing the team, and gave added interest to the bread demonstrations scheduled for our county fair. We had 17 teams entered for the county fair contest representing clubs from every section of the county."

The Columbus County home agent says:

"In food work I gave demonstrations and devised posters to make the nutrition lessons simple. The club members followed with posters and booklets to illustrate a balanced meal.

"The women studied the school lunch, and as a result of this one club installed the hot lunch in a rural school. It was gratifying at the end of the first month to have the teachers report an improvement in the children. The county newspaper said of this:

"'Patrons and teachers of the Chadbourn school feel gratified at the success of the lunch-room. Soup and crackers are given three days in the week, while milk and cocoa and sandwiches constitute the menu the other two days. About 70 children are served each day.'

"In one community one of the teachers told me about her splendid boarding place. It happened to be a home demonstration club member with whom she lived, who planned her meals and used recipes from bulletins she got from the regular meetings of the club."

The home agent of Onslow County says:

"I was talking to a woman one day who began to speak of her baby. I found that the child was two years old and could not walk. I asked a physician to examine the child, and he pronounced it suffering with malnutrition. On questioning the mother, I found she had not given milk to the child, but was feeding it a rice diet. I explained to her that the food she was giving was not sufficient and planned a diet of things she could easily get, teaching her how to prepare them. She promised to follow my directions. Two weeks later I went to see her and she told me she had been feeding the child as I told her and was proud to say it was looking better and acting more like a normal being. She was right. The child did look better and a bit of color was in her cheeks. The father was so grateful that he offered to pay me, but I told him I was paid by the county and State to help and it was a pleasure for me to do it. I felt that the value of the nutrition lessons might be multiplied here, as this couple had a family of eleven children."

MILK FOR HEALTH CAMPAIGN

The importance of milk in the diet has been well impressed upon the people of the towns and the rural districts by the milk-for-health campaigns held in four counties, which included one city and sixty-four rural communities, and reached 53,121 people. These were carried on through the coöperative arrangement of the State home demonstration agent and the chief of the Extension Animal Industry Division in 1920, and have been worked out successfully each year since.

The assistant State home agent and the head of the Dairy Division were asked to make plans for the conduct of these campaigns. A detailed account of these plans and stories of successful accomplishment are given in the 1922 report of the Division of Home Demonstration Work.

The following extract from a letter written by the home agent of Mecklenburg County three months after a milk-for-health campaign was held there will serve to show what the campaign leaves in its wake:

"Mrs. H. B. Hunter, president of Mecklenburg County Federation of Home Demonstration Clubs, told me yesterday that the milk producers were all out searching for more cows with which to fill the many orders for milk that come to them. This is the first time that the price of milk has not gone down in the summer time, but the supply is entirely inadequate."

That the results of these campaigns extend over an indefinite period of time is shown by a report from Mr. Lambeth of Winston-Salem to Mr. J. A. Arey of the Animal Industry Division. A campaign was conducted in Winston-Salem in 1921, the first one put on in this State. Mr. Lambeth says:

"We had an increase in volume of 25 per cent on milk and 33⅓ per cent on ice cream in 1922 over 1921. This, we believe you will agree, is a very gratifying increase in view of the world-wide conditions which existed during this period. The impetus given the consumption of milk during the campaign waged by the State Departments in connection with the Federal Government during 1921 has never died out, and we want to again thank you for this splendid assistance."

A county-wide milk campaign was put on in Franklin County. This was more in the nature of an awakening of the rural people to the need of more milk and its food value, and in order that the production of milk might be increased. In most of the eastern sections of the State it is necessary to urge that more and better dairy cows be kept.

Item	(a) Fruits		(b) Vegetables		(c) Meats and fish		(d) Other†		
	Women	Girls	Women	Girls	Women	Girls	Women	Girls	
254 (258b). Number of result demonstrations started or under way	5,470	2,125	5,516	2,480	1,024	12	1,066	308	(254) (258b)
255 (259b). Number of such demonstrations completed or carried through the year	4,988	1,783	4,685	2,100	179	4	1,050	289	255 (259b)
256 (260). Total amount preserved (a) Quarts canned	143,568	28,772	302,763	46,681	7,908	208	1,555	250	
(b) Pounds dried	14,735	587	289,588	1,019	24,426				
(c) Amount brined and cured	qts. 4,693	qts. 296	qts. 30,852	qts. 158	lbs.143,468	lbs.			256 (260)
(d) Other							2,000		

Item	Women	Girls	
260.1. Number of quarts of jelly	42,955	7,705	**260.1**
260.2. Number of quarts of preserves	98,196	7,556	**260.2**
260.3. Number of quarts of pickles	65,688	4,843	**260.3**
260.4. Number of quarts of fruit juices	15,771	1,169	**260.4**
260.5. Number of quarts of vinegar	19,633	57	**260.5**
261. Total value of products prepared by club members	$359,554.31	$ 32,509.78	261
262. Total cost of products prepared by club members	$ 8,606.31	$ 16,378.76	262
263. Total* number of homes influenced by home demonstration work to adopt better practices relative to food preservation (include demonstrators)	20,613	1,828	263

Forty-five counties included in their program of work instruction in food preservation. As a result women and girls report a total of 795,-278 containers filled with canned fruits and vegetables, jelly, preserves, pickles, fruit juices, vinegar, meats, and fish, with a total value of $392,-064.09.

Food conservation was the first project undertaken by Home Demonstration Work in the South, and still engages the interest of the club members. It provides a means of supplying the family table with vegetables and fruits through the winter, and is also a means of adding to the income of the rural women.

For the past few years special attention has been paid to conserving products which are peculiar to the South, and work with the muscadine grape and with figs has been carried to gratifying results. The central district agent, who is also specialist in conservation of food, gives the following account of her method with group schools she has held:

"In addition to my duties as district agent, I have been doing special work with jellies and fruit juices for the past four years. Finding jelly the most inferior product exhibited at fairs, we started out to raise the standard. Jelly demonstrations were given year after year at fairs—community, county, and State—at Farmers' conventions and other public gatherings for farm men and women, in home demonstration club meetings, in short courses, and at encampments. In 1921 we published 25,000 copies of a new jelly bulletin written by the State agent and myself, and received so many calls for it that we revised and printed 25,000 copies more in 1923. The success in raising the standard of jelly-making has been remarkable. Club girls from twelve to eighteen years of age give jelly demonstrations at fairs and in club meetings that would do credit to any home economics woman, and the finished product is just what a jelly should be. Jelly exhibits at fairs have improved steadily. Many times we find poor products, but now they are the exception.

"Each year during the vintage season intensive work with grape products has been carried on. In 1923 we decided to hold group schools for agents and club leaders, beginning on the coast when grapes first began to ripen and covering both the eastern district and a part of the central in time for the agents to get the instruction and repeat the demonstrations before their clubs during the vintage season.

"The plan worked very successfully. Three schools were held in the tidewater district, giving all of the agents in that district and their club leaders an opportunity to attend. The women, themselves, did the actual work. They were divided into groups and made cold-pressed juice, jelly stock, paste stock, paste and jelly. Enough products were put up at each meeting for the agent to have an exhibit to take back to her county. A number of varieties of muscadines were used, and it was interesting to note the characteristics of the different varieties. Pruning, propagation, and care of vines were discussed, and the agents were told where they could get bottles, jars, glasses, presses, and other equipment used in manufacturing grape products, and they were given recipes for making products not included in the bulletin.

"The first of the group schools was held in Elizabeth City, August 30th, and the last was in Goldsboro, September 22d.

"Our grapes continue to ripen until the middle of October and the Flowers grapes sometimes stay on the vines until the latter part of November. Having had the grape work early in the season, the agents and leaders were in a position to continue the demonstrations in their counties for several weeks before the crop was exhausted.

"Four negro agents attended the schools and were delighted to repeat the demonstrations in their clubs."

267.1. Number of members enrolled	(a) Women Completing	3,852	3,968	267.1
	(b) Girls Completing	5,175	5,589	

Item	CLOTHING					
	Selection		Construction and remodeling		Renovation	
	Women	Girls	Women	Girls	Women	Girls
267 (271b). Number of result demonstrations started or under way	2,748	2,740	2,079	2,842	1,030	1,036
268 (272b). Number of such demonstrations completed or carried through the year	1,289	2,092	1,569	2,605	541	783
273. Number of garments and hats, made by club members completing	3,606	4,379	8,513	4,681	825	181
274. Number of other articles made by club members completing	1,529	1,473	1,615	1,240	38	23
275. Total value of garments, hats, and other articles made by club members	$20,640.50	$ 6,018.75	$20,726.00	$ 7,884.65	$ 1,892.50	$ 410.46
276. Total cost of garments, hats, and other articles made by club members	$ 8,665.00	$ 2,449.00	$ 7,434.74	$ 3,185.50	$ 559.16	$ 178.10
277. Number* of homes influenced by home demonstration work to improve practices relative to clothing (include demonstrators)	6,044	2,258	1,296	966	197	158
280. Number of dress forms made according to instructions	376	171	12			

Item	Millinery		Other†	
	Women	Girls	Women	Girls
267 (271b). Number of result demonstrations started or under way	1,320	658	321	636
268 (272b). Number of such demonstrations completed or carried through the year	998	438	190	633
273. Number of garments and hats made by club members completing	1,987	622	364	647
274. Number of other articles made by club members completing	75	78	327	138
275. Total value of garments, hats, and others articles made by club members	$ 5,078.75	$ 2,315.00	$ 776.00	$ 642.30
276. Total cost of garments, hats and other articles made by club members	$ 1,779.45	$ 761.10	$ 340.75	$ 209.80
277. Number* of homes influenced by home demonstration work to improve practices relative to clothing (include demonstrators)	351	574		15
280. Number of dress forms made according to instructions			385	21

The home agents in 45 counties of the State have carried on clothing work through the women's and girls' clubs, and 3,852 women and 5,175 girls report completing work in this project.

Schools for leaders were held in each county reporting, and these leaders assisted the home agent and specialist by giving practical demonstrations in the use of patterns, stitches, making undergarments, dress forms, cutting and fitting, line and design, the use of color charts, and in dress finishes. The home agent in Wake County reports 11 millinery schools for leaders and Durham County reports a course in millinery and dress design given to 17 club leaders.

LEARNING TO MAKE THEIR OWN CLOTHES

Demonstrations in clothing are one of the important activities of home agents. This is a sewing club at work under the direction of the home agent and the local leader.

The New Hanover agent carried out a program of selection of materials, color, appropriate dress, proper shoes, and household linens, and says of her work:

"At Castle Hayne a Polish woman who did not speak English had just purchased a sewing machine and was making her children's clothing with raw seams. She could not read and was helpless to understand the instructions given. In a few minutes she learned from the agent's demonstration how to make flat fells and French seams, and was most grateful for the simple instructions."

The Davidson County agent, who has carried her club members through the difficult phases to advanced clothing work, says:

"I put on many demonstrations with the women in the proper cutting and fitting of clothing. At these meetings I learned that a difficult task of the rural women was the making of her own clothes. It seems to be easy enough for her to cut a child's garment or a dress for her grown-up daughter, as she can fit them easily; but fitting herself is a problem. I, therefore, gave demonstrations in the making of paper dress forms, assisting more than 35 women in making and fitting a shirtwaist pattern for themselves. They were then shown how to use it as the foundation for any dress. It pleased me to see that the women were really interested in learning how to overcome little defects in making clothing—things which detract so much from the beauty of a garment and brand it as 'home-made.' Some of the instructions included the generous use of the pressing board while seaming the garment; the correct way of putting in a sleeve; a good fit at the armhole and shoulders; the correct hang of the garment, etc. At these demonstrations I always managed to put some form of line and design before the women. The work with the girls' clubs was done in plain sewing. Personally, I believe this to be the best piece of work done during the year."

The home agent of Rowan County has helped her club members turn their knowledge to profit. She tells below of this new line of work:

"Hand sewing has become so popular in one of my clubs that they are advertising hand-made handkerchiefs and hand-made underwear for sale. They made a few pieces for me which I showed to my friends, and they received enough orders to keep them busy. They are already getting orders for articles to be made for Christmas gifts and are looking forward to making this a profitable business. The work was begun in September by the Miranda Girls' Club, and their leader, Miss Lois Sloop, has already some other women in the community helping them to fill the orders. In another part of the county one club girl is kept busy making hand-made handkerchiefs and baby clothes."

In speaking of the millinery work done by club members, the Catawba County home agent tells of a girl living in a mill village who attended one of her millinery schools and now is able not only to make her own hats, but earned $75 making hats for friends and neighbors.

The home agent of Forsyth County says:

"The women of my clubs have made 15 dress forms. One woman made the dress she wore to the State Federation, using her new dress form, and declared she would not sell the form for a hundred dollars if she could not get another."

County-wide instruction for girls in clothing was undertaken by the Perquimans County home agent, in which she secured the coöperation of the schools of the county. The district agent says:

"It was my pleasure to assist and to see some of the good work done by the girls. In December I saw the assistant county superintendent of education and put before her plans of clothing work outlined for the club girls for the year. Together we made these plans fit into the school program and arranged for the teacher to count as school work any club work done by the girls.

"The plan was to have the girls enter a contest in making a simple dress. This was to be made when the home agent or clothing leader was present, and the round-up of the contest was a part of the county commencement, when prizes were awarded. Instruction was given by the agent and clothing leaders in the homes of the different communities where tables and machines were available. These homes were usually the homes of home demonstration council women, who did everything to forward this clothing project.

"The schools of the county were first visited and the girls enrolled. At the next meeting patterns were selected, girls fitted in the various sizes, and the dresses were cut. Machine stitching came next, and sometimes it was necessary to sit by the child until she could learn to operate the machine.

"Other work embraced putting in sleeves; cutting and putting on bias binding; making belts and collars; hemming, and making buttonholes and other finishes."

The Sampson County agent says of the club members in making over old clothes.

"Dyeing has been quite popular both in the clothing work and interior decoration. We have made some good looking dresses come out of the dye bath that went in unfit for service. One woman was enthusiastic. She had carried to the club meeting a faded, ugly looking dress, that had been cast aside, to see what could be done with it, and she was much pleased when I told her she could dye it and have a good looking brown dress. When this garment came out of the bath a rich, beautiful brown at a cost of only 30 cents (the cost of the dye), she had to tell everyone about it. The club dyed old sheets for drapery; flour sacks for sofa-pillow covers; unbleached muslin for dresses, etc. They dyed faded dresses for the children that were quite attractive."

Report only *results* of extension activities that are supported by *records*.

289.1. Number club members enrolled in household management and home furnishing { (*a*) Women Completing 3,337 3,386 / (*b*) Girls Completing 773 774 } 289.1

Item	(*a*) Budget and accounts		(*b*) Equipment		(*c*) Kitchen arrangement		(*d*) Work planning		(*e*) Furnishing and decorating	
	Women	Girls	Women	Girls	Women	Girls	Women	Girls	Women	Girls
289 (292*b*). Number of result demonstrations started or under way	1,153	45	884	58	639	81	351	140	1,626	368
290 (293*b*). Number of such demonstrations completed or carried through the year	110	21	431	51	517	77	254	121	501	325
294. Number of household furnishings made or refinished by club members completing	1,090	50	142	185	286	59	77		946	788
297. Total* number of homes influenced by home demonstration work to change practices relative to home management and furnishings (include demonstrators)	1,937	10	906	68	862	82	274	103	5,745	727

301. Number of homes installing new equipment other than heat, light, water, and sewage systems (see Rural Engineering, page 24.)

302. New equipment involved in question 301.

(*a*) Hand washing machines	122	(*g*) Kitchen cabinets	510
(*b*) Power washing machines	117	(*h*) Wheel trays	61
(*c*) Fireless cookers	175	(*i*) Iceless refrigerators	44
(*d*) Pressure cookers	69	(*j*) Electric or gasoline iron	319
(*e*) Hand sweepers	31	(*k*) Miscellaneous	82
(*f*) Power vacuum cleaners	124		

In 36 counties household management formed a part of the program of work for the home demonstration clubs. Three thousand three hundred thirty-seven women and 773 girls completed work in keeping family accounts, making the budget, arranging the kitchen for convenience, and planning and beautifying the home. It is through household management and home furnishings that the housewife's work is made easier and the home more comfortable and beautiful for the family. Most interesting have been the reports of the home improvement campaigns that have been carried on in 308 communities, reaching 17,506 people, and the county-wide instruction in home and school ground planting given in 35 communities, reaching 4,875 people.

The following is the account of one of the better kitchen campaigns as told by the Cabarrus County agent:

"A campaign for improvement of kitchens conducted in Cabarrus County in the spring of 1923 brought about most interesting results. It began April 1st and ended with a county club rally May 26th. Prior to this time, in preparation for the campaign, Miss Creighton, the district agent, and I made talks in various sections of the county, the subject being the 'Ideal Kitchen.' At this time cards for enrolling in the campaign were given out. These cards were filled by interested county women and returned to me. The first week in April Miss Creighton and I visited the kitchens, scoring them, as they were without any improvements. To each woman we made suggestions and gave demonstrations as to how they might lighten their labors and save steps by rearranging the equipment; making each working surface the proper height; adding labor saving devices; and how they could make the kitchen more attractive by floor coverings and curtains.

"The women had until the last week in May to work. At that time they were visited, the final score given, and the prizes awarded. Twenty-five kitchens entered the final contest. The improvement made in them was most surprising and they were really the most attractive rooms in the house. One little girl remarked 'Since mother has improved her kitchen every other room in the house seems shabby and now she will have to make all of them as beautiful.' A woman, who entered the contest, said, 'Miss Wilson, I am not going to stop with this kitchen, but I am going clear through to the front of the house.' It seems this is but an entering wedge toward the improvement of the whole house.

"Three Cabarrus County women, Mrs. Goodman, Mrs. Petrie and Mrs. Rumple had kitchens which made the highest possible score, but perhaps the most interesting kitchen was Mrs. D. R. Mabry's, who won the first prize, a beautiful four burner oil stove. The first visit to her kitchen showed a very meagerly furnished room. The owner of the farm from whom Mr. Mabry rented had built the house as cheaply as possible. Rough, unplaned lumber was used for walls and flooring and these showed large and unsightly cracks. The windows were not screened and the kitchen was also used as a dining room. Mrs. Mabry had said she would enter the campaign provided the landlord would seal the kitchen and put down a new floor. A few weeks afterward she visited me in my office and almost tearfully told me she would have to drop out because the landlord would do nothing and she knew she could not paint unplaned lumber satisfactorily. We agreed that she should try whitewashing the walls and on the second visit to the kitchen it would never have been possible to recognize the place as the same kitchen of six weeks before. On the floor was linoleum in blue and white tile pattern; the

walls had been whitewashed; the little kitchen stove had been polished and put up on bricks to make it the right height; and back of it hung pots and pans bright and shining. A wood box, also whitewashed, was close by on rollers that the children might fill it with wood for mother. A white-washed barrel stood in one corner on a stool. It had a tight cover and was kept filled with water by the oldest boy. For a sink Mrs. Mabry had taken an old soap box, made it waterproof, and attached to it a pipe leading out into the yard. She painted the sink blue on the outside with several coats of white enamel inside. On a helf nearby was a clock and a vase of flowers. The table and chairs had been mended and were enameled blue and white. On one side of the table was a long bench decorated the same way where the little children sat. On the table was a snowy white table cloth and a vase of flowers. An old safe had been renovated with the same blue and white enamel, and converted into a most attractive china closet. At the windows were dainty white cheesecloth curtains. The windows and doors had been screened by Mrs. Mabry with the help of her husband, but with this exception she had done all of the work herself. The result was that she had as pretty a kitchen as can be found anywhere at a very small cost, the linoleum being the most expensive thing in the room. The price of this had been covered with her egg money."

The home agent in Rowan County gives the following account of the work she did in home beautification:

"To make changes in the manner of living in any people requires infinite tact and no end of teaching. I have never found an open avenue for giving instructions in interior decoration and home beautifying until this year when I began in January with a short course for club women and girls. The China Grave Farm-life School offered its building for our services. The subject of building the farm home was given on the first day by an architect, who gave some very timely advice, emphasizing sanitation.

"Following this, the district agent gave two periods each day on the arrangement and furnishing of the living room.

"This short course did just what I hoped it would do, that is, gave the women who attended it and some of their friends and neighbors an idea of what they might do with interior decoration to make their homes more attractive. As a result three clubs have asked for a series of lessons in interior decoration. At this point the outline of the four year course in home demonstration work reached us, and the women became all the more eager when they learned what to expect from the club. These three clubs are just beginning their work. China Grove, the first to take up the work, has had four lessons and it has been able to find within easy reach of its members homes in which they might demonstrate the subjects they were studying. For instance, last month we met with a woman who has recently refinished her floors, and she was so proud of them that she showed the club members all over the house and told them just what she did. Three other women who have treated their floors successfully were on the program."

The Robeson County home agent says:

"During the months of September and October short courses in house furnishings have been given to all home demonstration clubs, and this included all the organized communities of the county. The home demonstration agent worked out a course which required six hours of lecture and demonstration work and in as much as the subjects were so closely related it was necessary to give this all at one time, and group meetings were formed in which two

clubs met together for an all-day meeting. Every club member brought lunch and a happy social hour was enjoyed. Ten short courses of six hours each were conducted in the county and every club member was in reach of one of these courses. A complete course in the selection and arrangement of furniture; the refinishing of furniture; the decoration of household linens; and color and harmony was put on. Each woman kept a note book, and planned and worked out the color scheme for her living room. After the living room the kitchen will be taken up, as these women are all working for their certificates in household management."

Mecklenburg County has done exceptionally good work in county-wide instruction in home beautification, as is shown by the following report of the home agent:

"Beginning October 22nd, a county-wide home beautification campaign was put on in Mecklenburg County with the coöperation of the State Extension Service, the State College of Agriculture, the Progressive Farmer, the Save the Surface Organization, the Paint Manufacurers, and the local paint dealers.

"At a general meeting of these representatives held in September definite plans for the compaign were outlined. The Paint Manufacturing Companies donated 200 gallons of paint to be offered as prizes. The local dealers gave $60.00 for an essay contest with the county schools. Coöperative advertising, which cost a goodly sum, was planned. It was agreed to call this a Home Beautification Campaign with three principal ideas incorporated; the use of paint on residence, outbuildings, and farm implements; the underpinning of the house; and the planting of shrubs at the base of the building.

"During the campaign drive October 22nd-November 3rd, eighteen township mass meetings were held. Paint Manufacturing Companies furnished us with the very best paint experts available, who gave demonstrations in uses of paint and varnish. Wall and floor finishes, the refinishing of furniture, and outside painting were all included. The paint dealers exhibited a fine spirit and demonstrated their faith in the educational value of this campaign by scratching all names from materials used, making it impossible for any one to think it an advertising scheme.

"At some of the meetings landscape architects gave talks on home ground planning and the planting of shrubbery. The editor of the Save the Surface Magazine was with us through the entire drive and managed the publicity. Our local papers gave us the heartiest coöperation as they do in every movement put on by the Extension Service.

"Mr. E. R. Raney, Extension Household Engineer, who assisted the county agent and myself in the management of this campaign, returned to Charlotte the following week to help check up the results. Prizes were offered for interest aroused in this movement and this was measured in each community by the number signing pledges to do painting within the next six months. The outside of the house counted one point, the inside one, the barn and outbuildings one, and all farm implements one. The community in each township signing up the most points was awarded ten gallons of paint to be applied to their community house, church, or some other public building. In addition to this there were twenty, fifteen and ten gallons given as 1st, 2nd, and 3rd prizes to the three townships signing the greatest number of points. Four hundred eighty-eight points were reported, 212 of which were for the outside of houses.

"The interest in the essay contest was very gratifying. Ninety-seven essays were submitted and their contents proved that the young people of our county are well informed on the value, and the proper use of paint and varnish, and that their enthusiasm will aid materially in carrying on this work. Definite results cannot be estimated but we feel that this is the beginning of a strong movement to preserve and beautify the homesteads of Mecklenburg County, North Carolina, and the whole country.

"The campaign has given a boost to the year's work with the home demonstration clubs but has not completed it. There is a great demand among the women for more detailed work and to fill this need I am planning a kitchen improvement contest for the early spring months, and later hope to take up some other definite phase of follow-up work.

HOME HEALTH AND SANITATION

Report only *results* of extension activities that are supported by *records*.

	Completing		
281. 1. Number of members enrolled { (*a*) Women 2,602 / (*b*) Girls and Boys 10,372 }	2,789 / 10,472		**281.1**
281. Number of result demonstrations started or under way	9,616		281
282. Number of such demonstrations completed or carried through the year	1,424		282
283. Number of homes given instruction in home nursing and first aid	1,787		283
285. Total* number of homes influenced by extension service to adopt better sanitary practices	5,338		285
286. Number of homes installing sanitary closets or outhouses	1,254		286
287. Number of homes screened	3,198		287
288. Number of homes following other methods of controlling flies, mosquitoes, and other insects	1,600		288

RURAL ENGINEERING

Report only *results* of extention activities that are supported by *records*.

177. Number of result demonstrations started or under way	46	177
178. Number of such demonstrations completed or carried through the year	43	178
187. Number of dwellings constructed according to plans furnished	15	187
188. Number of dwellings remodeled according to plans furnished	19	188
189. Number of sewage-disposal systems installed	37	189
190. Number of water systems installed	72	190
191. Number of heating systems installed	---	191
192. Number of lighting systems installed	129	192

HORTICULTURE

Report only *results* of extension activities that are supported by *records*.

106.1. Number of members enrolled in horticulture { (*a*) Women Completing ..... 4,361 4,488 } 106.1
{ (*b*) Girls ..... 1,235 1,260 }

Item	(*a*) Tree fruits		(*b*) Bush and small fruits		(*c*) Grapes		(*d*) Market gardening and canning crops		
	Women	Girls	Women	Girls	Women	Girls	Women	Girls	
106 (111*b*). Number of demonstrations started or under way	1,090	227	990	18	395	6	4,707	4,112	106 (111*b*)
107 (112*b*). Number of demonstration completed or carried through the year	889	35	640	2	242		4,265	2,502	107 (112*b*)
114. Total yield grown by club members (bushels)	3,389	50	1,740	40	3,037		251,546	6,139	114
115. Total value of crops grown by club members	$4,725.75	$ 90.00	$2,837.48	$ 75.00	$ 5,380		$46,585.56	$7,213.50	115
115.1. Number selecting and saving seed and stock	609		250	3	20		698	83	**115.1**
122. Number spraying or otherwise treating for diseases or insect pests	911	13	72		40		976	430	122

Item	(e) 1 Part-year garden		(e) 2 All-year-round garden		(f) 1 Flowers, shrubs		(f) 2 Planting to a plan		
	Women	Girls	Women	Girls	Women	Girls	Women	Girls	
106 (111*b*). Number of demonstrations started or under way	2,332	717	2,123	233	2,331	867	1,430	50	106 (111*b*)
107 (112*b*). Number of demonstrations completed or carried through the year	1,424	311	2,060	207	1,905	676	481	43	107 (112*b*)
114. Total yield grown by club members (bushels)	29,525	3,637	40,635	563	----------	----------	5,832	----------	114
115. Total value of crops grown by club members	$36,918.10	$52,797.00	$41,726.00	$ 892.50	$ 497.00	$ 53.00	$7,290.00	----------	115
115.1. Number selecting and saving seed and stock	688	77	746	12	369	132	126	27	**115.1**
122. Number spraying or otherwise treating for diseases or insect pests	578	50	774	41	433	164	55	54	122

BEAUTIFICATION OF THE LANDSCAPE

Planning and planting the home and school grounds is a coöperative project between the Division of Home Demonstration Work and the Division of Horticulture and has been undertaken in 16 counties. The extension specialist in landscape design gave a course of instruction in planning and planting to the home demonstration agents at the annual school and conference and there planned to do work through the home demonstration clubs in a definite number of counties. One thousand four hundred eighty club members report planting to a plan. The use of native shrubs, trees, and flowers as far as possible is advised and 3,198 report using these.

PLANTING BEES

Much community enthusiasm was aroused by planting "bees" which were arranged in 16 communities for the early fall. These involved the planning and planting of the school grounds. This work is a project of home demonstration clubs and is done with the coöperation of the home agent, school superintendent, and county school supervisor, and in many cases the farm agent.

The following is a description of planting bees held in Nash County:

"In January our home demonstration clubs with the help of the extension specialist began a home and school improvement campaign, which will be carried on for two years. Five schools in the county were selected for demonstration purposes and plans were made for these. At each school there were held two or three planting days. In each community people were asked to come and spend the day, bring their teams, plows and implements, and the women to bring dinner. A day's work was given by all in laying off the walks and drives and preparing the soil. Shrubbery was brought from the woods and homes and planted. In each instance a school garden was laid off to be used as a propagating ground. These gardens are intended to supply young plants not only for the schools but the homes in the community. Attractive prizes were offered for the most improved school ground.

"Homes were enrolled and pictures made showing the bareness of the homes at the opening of the contest. These were made in 12 communities and at each one the home agent and the landscape gardener held conferences with the farmer and his wife and planned with them the arrangement of the yard and the improvement of the exterior of the home. During the campaign, which is still on, money has been raised by the club women to buy shrubbery. Lectures and plans have been made by the home agent to carry out the same program in the other schools and much planting has been done. One interesting feature of this campaign has been the flower exchange between community people."

The home agent of Gaston County reports as follows regarding the landscape gardening work:

"The Extension landscape specialist came to us in the early spring and as soon as his mission was made known to the people of the county more demands for his time were made than he could possibly fill. A project was selected for each township in the county and a few others to make the work

cover all sections. Blue prints with planting charts were made for five farm homes, two high schools, one township consolidated school, one colored school, and one park sponsored by a woman's club. At each of these centers people were invited to come and talk with the specialist about their own particular problems. Each has been carefully looked after through the spring and summer and a planting bee arranged for October. The securing of trees and shrubs is in the hands of one committee and the preparation of the ground and the providing of proper tools is in charge of another. Each step of the work is arranged with care that everything may be carried out systematically and in order. The communities are making this a get-together day and will again prove the advantage of team work in every undertaking."

The Anson County home agent says:

"In February the landscape specialist was with us for two days when we visited eight homes and three schools. He later sent us plans to be used in planting the shrubbery and results are already in evidence. We used these plans in our work all over the county, giving general ideas for planting, and we are having the club women draw plans of their premises at present, our office assisting them in filling them in as they should be. We announced the project in August of having pink crepe myrtles as our county shrub and urged every home in the county to plant one or more. The response has been wonderful. It is interesting to have the men as well as the women come into the office to tell that they have planted a crepe myrtle or have the promise of one. We have arranged to buy the plants in club lots in order to secure them. During the blooming season we got the names of every person in the county having one of these shrubs and found only ten. By January 1st, 1924 we hope to have at least one thousand planted. A crepe myrtle week is planned for December 1st when everybody will be asked to plant and at the same time put out fig bushes and muscadine grape vines."

The Extension specialist says of a planting bee in Alamance County:

"The plans of the Agricultural Extension Service of the State College and Department of Agriculture to beautify rural school grounds and to use these as object lessons in the beautification of rural homes is meeting with a good response wherever the work has been carried out. Planting bees have been arranged in 16 counties. During the present week one of the most successful of these planting days was held at the Whitney School in Alamance County.

"Over 600 people turned out for the occasion and practically every pupil and school patron brought some shrub, tree or flower for planting on the grounds. These grounds had been previously mapped and each plant was placed in accordance with the plan.

"The crowd worked diligently until all the plants were in the ground and then the folks gathered about a huge table laden with food prepared by the ladies of the community.

"Every one present had a good time, and when the day was over 75 trees, 450 shrubs and between 500 and 600 flowering plants had been set out. The roads and walks were laid out and graded and the lawn fully prepared for seeding to grass.

"Witnessing the event, delegations from 16 other home demonstration communities were present. W. O. Warren, chairman of the county board of commissioners, planted the first tree."

THE FAMILY GARDEN

Of the 54 organized counties 32 report work in the garden project that a variety of vegetables may be had for the family table and the surplus used in canning. Two thousand three hundred thirty-two women and 717 girls report planting part-year gardens, and 2,123 women and 233 girls all-year-round gardens. In addition to these 2,591 gardens are planted and cultivated by the men on the farm from which the women can and use the vegetables for the table. The total yield of garden products grown by club members is 74,360 bushels, which is valued at $84,816.35.

The Home Dairy

Report only *results* of extension activities that are supported by *records*.

138.1b. Number of members enrolled in home dairy work { (*a*) Women Completing ..... 1,761 3,114 / (*b*) Girls Completing ..... 170 223 } **138.1b**

Item	Milk		Butter		Cheese		Standardizing		
	Women	Girls	Women	Girls	Women	Girls	Women	Girls	
138*b* (143*b*). Number of result demonstrations started or under way	1,009	41	737	48	162	1	374	63	138*b* (143*b*)
139*b* (144*b*). Number of such demonstrations completed or carried this year	521	36	420	17	114	1	264	35	139*b* (144*b*)

	Women	Girls	
144.1*b*. Number of cows owned	3,882	49	**144.1*b*.**
144.2*b*. Number added during 1923	434	18	**144.2*b*.**
144.3*b*. Number of pounds of milk produced	5,863,454	44,496	**144.3*b*.**
144.4*b*. Number of pounds of milk and cream sold	1,030,574	3,000	**144.4*b*.**
144. *b*. Number of pounds of milk used at home	$147,537.57	$ 375.00	**144.5*b*.**
144.7*b*. Total value	5,059,692	41,200	**144.6*b*.**
144.8*b*. Number of pounds of butter made	$257,273.48	$ 2,698.75	**144.7*b*.**
144.9*b*. Number of pounds of butter sold	286,833	337	**144.8*b*.**
144.10*b*. Total value	54,754	68	**144.9*b*.**
144.11*b*. Number of pounds butter used at home	$36,693.60	$ 27.20	**144.10*b*.**
144.12*b*. Total value	136,890	269	**144.11*b*.**
144.13*b*. Number of pounds cheese made	$40,730.60	$ 107.64	**144.12*b*.**
144.14*b*. Number of pounds cheese sold	2,600	----------	**144.13*b*.**
144.15*b*. Total value	727	----------	**144.14*b*.**
144.16*b*. Number of pounds cheese used at home	$ 350.10	----------	**144.15*b*.**
144.17*b*. Total value	1,918	----------	**144.16*b*.**
	$ 430.95	----------	**144.17*b*.**

Dairy work is a report of what has been done with the family cow. Twenty-eight counties have undertaken this project with 1,716 women and 170 girls completing the work outlined. The number of cows owned by women and girls is 3,931, showing an increase of 452 cows in 1923. The total number of pounds of milk produced is 5,907,950. With an estimate of 50 cents a gallon, the total value of milk produced is $369,-246.00.

Dairy work is closely linked with nutrition as is also gardening and poultry work. What a woman produces on the farm she is taught to use in the feeding of her family and the value of the home dairy is seen in the reports of food selection and meal planning. Instruction in the use of milk and butter have been given also in the four milk campaigns held in the towns and rural district.

Number of poultry breeders' associations or clubs organized during the year ..... Completing 64 159f

138.1f. Total number of members enrolled in poultry work { (a) Women and Men ..... 2,989 3,100 ; (b) Girls and Boys ..... 984 1,013 } 138.1f

Item	Standard bred eggs		Standard bred fowls		Males to improve stock		Culling flock		Using incubators		Other approved equipment		
	Women	Girls	Women	Girls	Women	Girls	Women	Girls	Women	Girls	Women	Girls	
(143f). Number of result demonstrations started or under way in securing	2,659	723	3,254	543	1,508	190	2,236	278	1,092	36	686	164	138f (143f)
(144f). Number of such demonstrations completed or carried through the year	2,194	607	2,046	439	944	139	1,901	234	437	36	541	149	139 144f

		Women	Girls	
144.1f	Total number in flocks	151,563	11,273	144.1f
144.2f	Total number of flocks culled	1,371	95	144.2f
144.3f	Total egg production	6,101,897	210,710	144.3f
144.4f	Number of pounds of dress poultry sold	42,464	956	144.4f
144.5f	Number of pounds of dress poultry used at home	161,076	1,498	144.5f
144.6f	Number of pounds of live poultry	285,644	9,115	144.6f
144.7f	Number of pounds of live poultry sold	168,454	5,392	144.7f
144.8f	Number of dozens of eggs sold	380,612	11,962	144.8f
144.9f	Number of dozens of eggs used at home	270,027	4,155½	144.9f
144.10f	Number of dozens of standard bred eggs used for hatching	112,400	5,341½	144.10f
144.11f	Number of standard bred fowls sold for breeding purposes	3,506	458	144.11f
144.12f	Total value of all fowls sold	$ 77,032.40	$ 3,192.35	144.12f
144.13f	Total value of all fowls used at home	76,805.98	785.14	144.13f
144.14f	Total value of all eggs sold	154,587.16	40,178.50	144.14f
144.15f	Total value of all eggs used at home	68,443.05	523.75	144.15f

Poultry work is being done through the home demonstration clubs in 38 counties of the State and is one of the most popular projects undertaken by the Division of Home Demonstration Work. The poultry specialist and his assistant, with the home demonstration agent have given close attention to club members undertaking work and results are gratifying. If the total value of all poultry and poultry products sold and used at home by club members reached the sum of $385,557.00 the importance of emphasizing this project with women and girls is manifest. Many of the fine results of poultry work will be found under the marketing project.

The Northampton agent, who has emphasized poultry work this year, says:

"Farm women were losing so many baby chicks that they asked for work in poultry. We took up first the care and feeding of baby chicks. Nearly all the women had been feeding them too much but after trying a different method, they found a much smaller percentage of loss. Common diseases of chickens and their treatment followed care of chicks, and next ten caponizing demonstrations were given. The women became so interested that they bought their own instruments. I taught them to work on a dead fowl until they were sure they could perform the operation. We now have 50 capons growing nicely. During August and September we undertook culling the flock and will emphasize pure bred flocks and work with this end in view next winter and spring by setting standard bred eggs and buying better fowls for the head of the flocks."

The New Hanover County agent says:

"Poultry work in the county has been an outstanding project in which I was assisted by the farm agent and the state poultry agent. With the organization of the Cape Fear Poultry Association for adults, and the Hutaff Poultry Club for girls and boys, poultry work has become a part of each day's program.

"The Cape Fear Poultry Association was formed during February with 43 active, enthusiastic members, who have been buying feed coöperatively and by so doing have been able to save as much as $10.00 a ton. Many of the members of the Association are hatching baby chicks for sale; selling eggs for hatching purposes; selling breed stock; and building poultry houses according to plans furnished by the Extension Division. One afternoon while I was doing my work I noticed ten of these houses being constructed or remodeled.

"The sale of baby chicks has become a real industry in the county. Seven hundred fifty chicks were purchased by Mr. Hutaff for the Hutaff Poultry Club. Many of the boys and girls other than club members who became interested in poultry through the efforts of the Hutaff Club purchased baby chicks as a nucleus for a flock.

"Mrs. Albert Seitter, a club member, sends in the following report from January 1st to September 1st, 1923:

"Total egg production from 40 hens, pure bred Rhode Island Reds, 356 dozen, of which 205 dozen were sold, 37 dozen used for hatching, and 114 dozen used at home. Seventy-six standard bred fowls were sold for breeding and $59.23 worth of broilers were sold. Value of eggs from 40 hens sold and used at home $135.00. Value of fowls sold $154.23. She

did not keep a record of the pounds of poultry used at home. She states that with this money she purchased a sewing machine and put the rest in the bank for use in the home. Last fall she visited the Castle Haynes Fair and saw the brooder house as shown in the Coastal Plains Experiment Station exhibit. Her husband built one of these for her and she was able to care for the chicks with a minimum amount of time and labor. She now has a beautiful flock of hens and pullets ready for the fall and winter egg production.

THE HUTAFF POULTRY CLUB

"The Hutaff Poultry Club was organized on March 10th of the present year. It consists of 50 boys and girls from various communities in New Hanover County. Each child, at the inception of the club, was presented by the Messrs Hutaff with 15 baby chicks, the only condition being that they attend the meetings of the club and that they follow the directions of those in charge as to the care and feeding of the chickens. Regular meetings of the club are held each month and instructive programs are given at each meeting. The object of this club is to demonstrate the greater production of poultry through better feeding and care of the birds. Under varying conditions the members have raised 440 out of the 750 baby chicks given to them. The weather at the time that the children received their chicks was the coldest of the winter and many had trouble in caring for them where the faithful old hen was not available. The majority of the children made the model brood coops as they were required to do in carrying on the project. Taken as a whole the work accomplished has been marvelous to me, for the interest of the children has been aroused and other children observing the methods used have followed directions. Many of the children have excellent birds according to the care and conditions under which they worked."

221. List below the coöperative marketing associations organized during the year upon suggestion or counsel of the home demonstration agent. (a) Women Completing 1,451; (b) Girls Completing 206. 221

Name of Association	Number	Number of members operating	Supplies and products handled			
			Pounds of poultry	Dozens of eggs	Pounds of butter	Pounds of vegetables
Curb markets	13	585	48,946	16,007	3,038	182,833
Stall markets	11	891	22,462	133,268	6,087	163,445
Egg circles						
Selling to consumer			5,750	4,630	2,120	6,736
Miscellaneous	5	276	13,783	45,234	4,465	4,021

	Supplies and products handled			Products sold			
	Pounds of sausage, meats, etc.	Canned goods, preserves etc.	Miscellaneous	Value	Profit	Number selling to merchants or consumer	Number selling through parcels post or express
Curb markets	25,521	4,509	*42,588	$ 44,802.45	$ 19,872.98	293	205
Stall markets	7,785	3,161	*318	26,229.32	**12,813.34	649	54
Egg circles							
Selling to consumer	230	282		5,898.80	**4,949.40		15
Miscellaneous	8,809	8,375	10	16,266.39	4,354.00	376	154

During the present year there have been carried on by home demonstration clubs in 24 counties 13 club and bazaar and 11 stall markets for the sale of home products. In 1922, 9 markets were established. The success of these markets in disposing of the surplus products of the rural women's garden, dairy, and poultry products has increased the number to 15. This income earning feature has rebounded greatly to the credit of the Division of Home Demonstration Work and has made it possible for the rural woman to supply herself with comforts and even luxuries that she could never have hoped to attain without it.

The Home Demonstration Market at Wilmington

Farm club women of New Hanover, Brunswick and Pender Counties sell their surplus produce to advantage at this market.

The following stories of the results of these markets will prove their worth to the people:

The New Hanover home agent says:

"The opening of the Cape Fear Home Demonstration Exchange on May 26th in the City Auditorium in Wilmington marked an epoch in demonstration work in this part of the state. Three counties—Brunswick, New Hanover, and Pender, through their farm and home agents, organized the market, getting their club women to sell the surplus fruits, vegetables, poultry and eggs. This as now operated is a bazaar market and is open on Saturday morning from 8:00 a.m. to 12:00 a.m. A bulletin board with the prices posted is in view of all buyers. A price committee, composed of a producer, a consumer, and one of the home and farm agents from the counties, functions each week and fixes the prices on the products. No charge is made for selling. Each producer is given a number and all

articles are marked with that number. She keeps an accurate account of articles sold through the use of a blank which the home agent has made and distributes each week.

"From the first sales day the market has been a success. The city officials did their part in cleaning the auditorium, the street cleaning force and the fire department coöperating. The second market Saturday the club women and the home agents made up a market basket with fruits, vegetables, chicken, flowers, etc. and sent to the Mayor of the city in recognition of his kind coöperation. The city women have coöperated beautifully in patronizing the market. Here they find fresh vegetables, fruits, flowers, fresh eggs, infertile eggs all graded as to size and color, milk fed chickens, dressed and in the feather, cakes, candy, etc. Before the opening of the market, the home agent went before the Sorosis Woman's Club and asked that they support the rural club women at the market. Their influence has meant much for its success.

"A very decided effort has been made by all concerned to standardize all products and to put them up attractively. Much improvement has been made in every way. Eggs are graded as to size and color, and sold in the standard egg crates; vegetables carefully graded as to size and bunch, and poultry dressed carefully. The sales from the 20 Saturdays have amounted to $3,874.22 with a profit of $1,205.00. There are 146 members who have been selling through this agency. In New Hanover County most of the people have regular customers who buy at the homes and farms or the products are brought to town and sold at cafeterias, to merchants or to private customers.

"The market has been a means of bringing the producer and consumer into direct relations."

The Brunswick County agent says of this tri-county market:

"The market has been a success from the first but the best thing growing out of it is the improvement in the quality of products offered for sale. Thirty-eight Brunswick County women and girls have sold on the market and are fast learning to standardize the products. On the first market day the eggs, for example, were for the most part a sorry lot. Two women had graded, infertile eggs for sale and had no trouble selling them for 37½ cents while the general run of mixed sizes, clean and soiled eggs, were sold for 30 cents after the good ones were gone. One woman said to me, 'I bet I have me some clean nests next week.' At that time eggs in the remote parts of Brunswick County were selling for 15 cents and nearer Wilmington for 22 cents.

"One young girl took Barred Rock chickens which were milk fed to the market. The first time she carried them in a box with slats nailed across the top but she saw they could not be seen and next time she had a good looking coop. Her chickens were so good to 'look at' that people passed by the mongrel lots and hers were sold as fast as she could serve the customers. Soon she had a reputation for quality and her customers would ask for the 'young lady with the milk fed chickens.' Her success was an argument for pure bred flocks and several women said to me, 'I am going to have pure bred chickens.'

"The women are beginning to see, too, that it pays to grade vegetables. After a lot of beans were passed by, the old tough ones were taken out and the best ones sold at once. They saw what it means to grade.

"The market has helped in the selection of food for the home and has helped my work in that line much. It has been a medium for the women to exchange flower cuttings and to buy and sell pure bred poultry to each other.

"Two sisters in Brunswick County had been in the poultry business about three years and had a line of private customers to whom they sold dressed poultry and eggs. When the market opened they brought some extra things which they sold there. They began at once to have their customers come to the market for their produce and now they have them all come and have many new customers. It is quite interesting to watch their booth. There is such a feeling of friendship between them and their customers. If a buyer tries their especially fed, dressed chickens they do not want others. They charge a few cents above the market price but it is paid cheerfully.

"The wife of the baby specialist came to the market the first day to find some fresh eggs for her babies. I told her 'the sisters' had infertile eggs which were guaranteed fresh and each Saturday she comes back for eggs and other women also are learning the value of infertile eggs. One other woman, having her private customers in the city, has come to the market the last three weeks and finds that she can sell more with much less work and time and still keep her customers.

"The women enjoy the social contact and one woman said, 'Why this is grand, it is just like one big family.' The contact with the women of other counties and with the customers has even made an improvement in the dress of some of the women.

"Everything in the vegetable line has been sold as well as poultry, eggs, cured meats, canned goods, and fruits.

"The market is four months old, and of the $3,874.22 taken in, $2,003.47 has gone to Brunswick County."

The third county in the combine is Pender, whose home agent says:

"One of the first meetings I attended after coming to Pender County was a meeting in the office of Mayor Cowan in Wilmington relative to planning a better market for Wilmington.

"On April 28th Miss Jeffress, New Hanover county agent, came to Pender County, met with my county council, and told them of the offer made by the Wilmington board and the plan for conducting the market. Members of the council were very enthusiastic over the proposition and hastened to spread the good tidings in every community.

"In each club that expected to take part in the market a marketing committee was appointed to take charge of and sell all products sent down by that particular club. On May 26th there was present at the opening a good representative group of club women from Brunswick, New Hanover, and Pender counties, together with the home and farm agents of these counties. Trucks were hired to take down products. The newspapers had kindly given much publicity to this matter. The price committee had worked out prices and all went well for the first day. Improvements were made each week until all was smooth sailing.

"To prove that this has meant much to the club women, let's see what Watha Community has done:

"Appointed its committee; hired a truck to take down the club products; and provided a way for committee to get to town, 31 miles from Watha. All products are received and checked by Mrs. J. M. Lee, a council member, Friday night, and loaded on the truck early Saturday morning in time to arrive in Wilmington at 8:00 in time for the market to open. The producers pay $6.00 a week for the truck and take a certain per cent from sales to pay for same. This has never amounted to more than 11%, more often though from 9% to 10%. The sales for this club alone, from May 26th to September 22nd amounted to $1,000.00.

"Other clubs have done proportionally as well but none so large as Watha have taken part due to great distance from Wilmington.

"Besides those who sell on market known as the Cape Fear Home Demonstration Exchange, there are a few of my women who have standing orders with hotels and restaurants for poultry and eggs. These they ship by express.

Anson County, which has been marketing club products for ten years, has the following to report:

"Beginning November 1st, 1922, and continuing until April 15th, 1923, the club women of Anson County sold 400 pounds of dressed poultry each week to the State College of Agriculture and Engineering, Raleigh. Wednesday was known as 'dressing day' and Thursday as 'packing day.' The people were called together in their respective communities alternately and a shipment made locally wherever the supply was sufficient, otherwise the hens were brought to Wadesboro and packed coöperatively.

"The marketing was organized first by securing a list of every person in the county having hens for sale and the number. Next a call meeting in that community was held and women were instructed in dressing, packing, making out bills, etc. The hens were brought to a central point usually at a club member's home, and several times at a school house. Each person helped to do the work. The hens were killed by sticking in the roof of the mouth, after being hung up by the feet. The feathers were plucked and hens hung in a house to cool overnight. Next morning they were packed in barrels and taken to shipping point.

"Quite frequently we had telegrams for increased number of pounds and by having the list in the office it was quite easy to notify the local leader in another community to get her supply ready.

"During Thanksgiving week we supplied two colleges with their turkeys, dressing and packing in same manner.

"At these community 'hen parties' the people had the best time. The husbands would come and sometimes the whole family. They often carried lunch and began the work at eleven o'clock. The Seaboard Railroad people became very much interested in these meetings and sent a representative to get a picture of the scene. At the close of the working period the home agent talked to the community on the growing of more and better poultry; the advantage of selling coöperatively in large lots; and the need of a continuous supply in order to hold a college order. The value of receiving checks for all their supply at one time was a great advantage also.

"Orders were also filled by parcel post from many individual housewives and from one fancy grocery store Friday of each week. Through the medium of selling dressed poultry we also secured orders for fancy fig preserves, pickles and butter.

"On December 14, 15, and 16 we held a home products sale in Wadesboro, consisting of all sorts of food products and also fancy work for Christmas presents. One day was designated as poultry day when the farmers brought in turkeys and fowls for Christmas trade. This sale was a success, amounting to $647.00.

"In addition to the weekly parcel post marketing the home agent observed Fridays as 'sausage day' where fresh country sausage could be secured from agent's office. Canned vegetables in tin were handled by local merchants.

SUMMARY OF ANSON COUNTY MARKETING

By parcel post	$3,009.00
Home products sale	647.00
Sale from agent's office	240.00
Local merchants, hotel and tea-room:	
Canned goods	3,750.00
Poultry sold, live	1,250.00
Miscellaneous articles	350.00
Total	$9,246.00

The Vance County agent says:

"All of 1922 we felt the need of a better market for home produce, and we had meetings for discussing it. In January of 1923 we held a meeting in my office. There were present the president of the woman's club of Henderson, representatives from the rural clubs, the secretary and president of the chamber of commerce, an advertising committee, Mrs. Cornelia Morris, and the county farm and home demonstration agents. It was decided to have a one day sale of home products to be in Cooper's warehouse February 3rd. This was such a success that it was decided that day to continue it every Saturday.

"As soon as gardens commenced to produce spring vegetables we put on two and three market days a week. By having three days the housewife says she is supplied with vegetables the whole week, both town and country being highly pleased. The women tell me weekly that I meant a lot to them before, but this is by far the greatest thing ever accomplished in the county. I go to market three mornings a week at 7:00 o'clock, work there until noon, then go on in the country to hold a meeting. One little town woman said to me as I was taking her and products home that she had never known anything in a county of so much benefit to the town people.

"I promised the rural women if they would back me I would do everything in my power to make the market a success, leaving other work undone if necessary, but I have made an effort to do all other work also. We have three women who have reported that they will make the extra $500.00 the Progressive Farmer advised every woman to make to help the family income. Farmers who have patronized the market should be financially better this fall as they have had an income all the year. The only kickers from the country are those coming just now and then with an abundance of vegetables that are already too plentiful, and who get there about 10:00 o'clock after the crowd has come and gone. The market has helped to standardize products. People see their produce for the first time by the side of their neighbors and find out why their stuff will not sell. It has improved the home table as people have never had such a variety before. They try to raise everything marketable and have plenty for the home table besides. The farmer like the merchant, is learning what his trade demands, and he is trying to supply the demand. He no longer says, 'I prefer green string beans' if he has a customer who wants wax ones. It has done wonderful things in bringing the town and country together; it has also brought the country people together as nothing else has. We feel this is our big piece of work this year, yet we hope for it to grow and grow until it will be so lasting nothing can tear it down."

ARTS AND CRAFTS

Twenty-six counties report handiwork in basketry, rug weaving, pottery, painted furniture, and miscellaneous articles with 2,520 women and 809 girls completing work. There were 1,510 women and 619 girls making baskets; 94 women and 63 girls making rugs; 236 women and 19 girls making pottery and wax articles; and 524 women and 382 girls making miscellaneous articles.

MRS. BETTIE CANIPE, A HOME DEMONSTRATION CLUB MEMBER OF CLEVELAND COUNTY BOUGHT A HOME WITH BASKETS MADE UNDER THE DIRECTION OF HER HOME AGENT.

The Hertford County agent, who is very skilful in basketry, says:

"The women in Hertford County enjoy basketry thoroughly. In fact their work is becoming quite advanced. As many as six ferneries were made in one club. Several table lamps and two floor lamps, wicker chairs, foot stools, and numerous varieties of baskets and bowls have been made. The women have taken orders from many towns in North Carolina and adjoining states. They are interested now in jute handbags, fancy fans, sweaters filled in with yarn, wool flowers, beads, dolls and decoration of pottery."

The Northampton agent says:

"A two-day basketry school was held at Potecasi. Miss Swindell of Hertford County came over and helped with the basketry lessons. Women

from eight communities attended this school, each person present made at least one basket. Several of the high school boys and girls made lunch baskets. The ladies made flower wall baskets, flower baskets, sewing baskets, serving trays, tea coasters, etc.

"Since this school there have been a number of follow-up meetings in basketry where pieces were completed, and new pieces made. Two other communities have asked for a day each to be devoted to basketry.

"A cripple boy has learned to make baskets and is selling all he makes, thus supporting himself. He has saved over $100.00."

The Robeson County agent says:

"The last work during the winter months before we began spring gardening and poultry work was the making of rag rugs. In the office of the home agent was placed a union special loom and each member was taught how to prepare her material. After she had done this it was brought into my office and there she learned to weave her rug. Every club made a number of these, in all about 50, and they are of good color and good keeping with the rest of the furnishings."

The Catawba County agent says:

"Many of my girls and women have made beautiful baskets from native materials such as honeysuckle vines, long leaf pine needles, wire grass, etc. They have also made table mats of shucks. The door mats of shucks were very popular with the women."

COUNTY-WIDE CAMPAIGNS

That all parts of the county may be reached at least twice a year with home economics information the Division of Home Demonstration Work has asked the county agents to arrange for county-wide instruction through schools, churches and other meetings. To that end in 1923 thirty-eight counties have reported success in this kind of instruction. These campaigns have been treated in detail under the subject-matter with which they dealt. The following statistics indicate the number and kind of communities and people reached, and the number and kind of campaigns:

Kind	Communities Involved	No. People Reached
Home improvement	308	17,506
Milk	65	53,121
Poultry	54	2,641
Bread	576	41,141
School lunch	55	2,660
School improvement	31	4,500
Yard improvement	4	375
Garden	56	1,210
Nutrition	46	1,743
Rat extermination	161	14,334
Apple	47	
Baby welfare	40	600

FAIRS

In 1923 there were held in North Carolina 117 community and 43 county fairs which served as feeders to the state fair held in Raleigh.

The plan of organization of the community, county, and state fairs has been treated fully in the annual report of Home Demonstration work for 1921 and 1922. Among the new features at the state fair, which were carried out in many of the communities and county fairs as well, were demonstrations in the following:

1. Kind and amount of foods needed to feed a family of five one week.

2. The making of excellent bread from North Carolina soft wheat flour, thus disproving the assertion that only hard wheat flour can be made into the best loaves.

3. The use of the sweet potato in wholesome and toothsome dishes.

4. The competitive girls' and boys' team work.

Arrangements were made to assign well equipped booths in the home demonstration building to accommodate at one time two teams in bread and biscuit making, two in jelly making, two in clothing, and four in poultry. Twenty-five teams of two each competed.

TRAINING CLUB GIRL TEAMS

Training teams of girls in each county to demonstrate and bringing these county teams together in competition has stimulated the interest of the leaders in getting a thorough knowledge of the subject they are to present; arranging systematically what they have to say; and in seeing that their equipment is adequate and their method of presenting convincing.

The 54 North Carolina counties organized in home demonstration work came together in five districts and there the winning teams (two to a team) competed in demonstrating poultry culling, poultry equipment, bread making, biscuit making, jelly making, canning, and judging clothing. The five districts sent 25 winning teams to the State Fair and in the home demonstration building they were the center of interest, holding an audience through the demonstrations with their attractive presentations of the subject and doing much to prove the worth of home demonstration work to the people of the state.

GIRLS' AND BOYS' ENCAMPMENTS

Encampments for girls and boys were held in 31 counties and were conducted jointly by the home and farm agents. That these camps are a vitalizing feature of the work for young people is shown by the increase over 1922 of 7 camps. Encampments are productive of club

spirit and the enforcing of rules and strictness of the discipline furnish the best kind of training for club leaders. Some subject-matter instruction is given at certain hours during the day but this is reduced to a minimum that boys and girls may be given a chance for wholesome recreation.

READY TO ATTEND THE CLUB ENCAMPMENT
Eastern Carolina club members ready to start to the camping site.

A full account of encampment plans and methods, together with stories of definite camps, is given in the Home Demonstration Report of 1922.

NEGRO WORK

Home demonstration work for negroes was done in six organized counties, Anson, Beaufort, Columbus, Johnston, Wake and Wayne.

The colored agent in each county is an assistant to the white home agent and with her help selects communities, plans work, and carries on instruction. The plans and methods are on the whole those followed in the work for white people but are in a simplified form. The work embraces foods and nutrition, clothing, household management, gardening, poultry, home health and sanitation, and the promoting of community fairs.

The total number of clubs organized for the conduct of home demonstration work is 225 with a membership of 3867. Seventy-nine of these are women's clubs with a membership of 2209 and 75 are girls

clubs with a membership of 1897. The others are community clubs and here and there a boy's club.

STATISTICS

Total number of home visits made in conducting extension work	3541
Number of different homes visited	1547
Number of office calls relating to extension work	1198
Number of days spent in office	375
Number of days spent in field	1270½
Number of individual letters written	2453
Number of different circular letters prepared and sent out	1607
Number of copies of such circular letters	5867
Number of extension articles written by agent and published in local papers	56
Number of rest rooms provided for use of rural people	1

	Men	Boys	Women	Girls	Boys and Girls	Community	
22. Training meetings* held for local leaders							
(*a*) Number			98	61	3	14	**22**
(*b*) Attendance			857	697	60	1,514	
23. Demonstration meetings held							
(*a*) Number	3	2	411	146	15	30	**23**
(*b*) Attendance	358	30	6,804	9,988	181	18,281	

26. Junior club encampments and rallies held	(*a*) Number 5	Boys	
		Girls	
	(*b*) Attendance by club members	Boys	11
		Girls	1967
	(*c*) Total attendance		1978

The Wayne negro agent says of her work:

"There was no form of state extension organization for negroes when I came to Wayne County. The church, the school and secret orders were about all that brought the people together. All of these organizations have been very kind in their dealings toward me and the work, and I have been to many of the churches and school, where, with one exception, I have been gladly received.

"The church is our strongest organization and I have had to appeal to it for help in all of my efforts. They let me have the church for all of my community meetings, even fairs, and lead in setting things right for me. The people seem perfectly delighted that the Government, State and Federal, should think enough of them to send one of their own women to work with them. Before the Government was just a name to most of them, but now they feel that it is a real friend.

"I have been in the county seventeen months and since that time I have organized 25 girls' and women's clubs. I found it almost impossible to handle so many clubs unless I had some way to get to them, so I have given up 4. Now I have 21 clubs, 11 women's with 259 active members and 10 girls' clubs with 156 active members. These clubs work beautifully. When I first took the work it seemed that the month between our meetings was just a week long, but now that I know the people and like them so well, the month between our meetings seems like two or three months. We have no boss in our clubs. It matters not how old any member is, she is a girl in the club and I am the mother and try hard to please my daughters. I try to meet each club once a month.

"We have no farm agent to help the negro farmers so I try to help the men by giving talks on different subjects, and twice in the year we had county-wide mass meetings, at which time we got the very best men and women we could find to speak to us on subjects which are helpful to the farmer and his family. March 3, 1923 we had the first one of these mass meetings. It was all I could ask. Every seat in the court house was taken and a number of the boys had to find seats in the gallery. J. D. Wray, negro extension agent, who was one of the speakers, said: 'It is the best farmers' meeting I have attended in the state.' The day was perfect and the farmer and his family proved that they were anxious to be helped. We scarcely had a half-dozen of the town folks.

"Rev. C. Dillard, who is principal of the high school and one of the respected citizens of long standing, took charge of the meeting for us and gave dignity to the occasion. He also took care of one of the speakers, T. S. Inborden, free of charge. I find Rev. Dillard a very great help to our work."

The Tidewater home district agent says of the negro Beaufort County home agent:

"Sarah Jones Williams has been in service here more than a year. The success of her work is largely attributable to the supervision of the local white agent. All work undertaken by Sarah is planned by the white agent. She reports to this agent and her weekly schedules are approved by her.

"Sarah's program for the year, which is given below, was carried out very well:

Biscuit Campaign
Poultry Work
Garden Work
Food Conservation
Laundry
Talks on Sanitation and Health

"In her biscuit campaign, which she patterned after Miss Keller's, the white agent, she gave demonstrations in 28 communities, reaching 1020 people."

The following figures and narratives will show results accomplished in the seven projects planned for.

FOOD AND NUTRITION

230.1. Number of members enrolled in food and nutrition work and completing..... { (a) Girls 1440 (b) Women 1514

FOOD SELECTION

Item	Women	Girl	
230. Number of result demonstrations started or under way	536	543	230
231. Number of such demonstrations completed or carried through the year	524	496	231
231.1. Number of method demonstrations	490	435	**231.1**
232. Total* number of homes influenced by extension service to serve better selected food (include demonstrators)	1,186	69	232
233. Number of homes using more fruits in the diet	974	145	233
234. Number of homes using more green vegetables in the diet	938	94	234
235. Number of homes using more milk and other dairy products in the diet	479	150	235
237. Number of homes using more poultry products in the diet	978	90	237
238. Number of homes using more unrefined cereal products in the diet	2,013	25	238

Six counties report doing work with negores in food selection and food preparation which constitutes the main part of home demonstration instruction and 1,284 women and 2,074 girls have been influenced to use better food practices in their homes.

The Columbus County negro agent says:

"Food preparation was carried on during the school term, especially with girls. The girls prepared the following: Baking powder buiscuits, sour milk biscuits, sweet potato pie and lemon custard pie. These were taken up one at a time. I gave a demonstration and then called on one of the club members to do the same. At the next meeting held the members reported whether or not they had used the recipe in the home. I have made visits to many of the homes and have taken dinner to see whether the members were doing what they had been taught. I am very well pleased to see that in so many homes the girls are using the method I taught them, and in four of my communities the people know how to make good biscuits both with sweet and sour milk.

"Another phase of this work taken up was the school lunch. I gave demonstrations on preparing the child's lunch for school. Bulletins were also given in order to aid women and girls in preparing it."

The Wayne County negro agent says:

"At Pikeville my Vail club girls served a group making talks in the county a breakfast which they furnished and prepared, making corn bread, as I had taught them. The breakfast consisted of hot corn bread, ham and eggs, freshly made butter and good coffee with cream. The table linen was pretty and clean as was everything else. One of the girls told us that her father would not eat corn bread until she learned how to cook it in the club. We were cared for so beautifully by the club members and those who assisted them."

FOOD PRESERVATION

In six counties work has been done by the negro home agent in canning fruits and vegetables and a total of 106,172 containers of canned vegetables and fruits, meats and fish, preserves, pickles, jelly, fruit juices and vinegar are reported filled at a value of $46,347.20

Item	(a) Fruits		(b) Vegetables		(c) Meats and fish		(d) Other†		
	Women	Girls	Women	Girls	Women	Girls	Women	Girls	
254 (258*b*). Number of result demonstrations started or under way	378	593	568	636	25	5			(254 (258*b*)
255 (259*b*). Number of such demonstrations completed or carried through the year	426	452	362	218					(255 (259*b*)
256 (260) Total amount pre-served (*a*) Quarts canned	21,458	2,323	28,977	3,457½	570	190	1,014	798	
(*b*) Pounds dried	1,306	206	1,988		192				
(*c*) Amount brined and cured	159 qts.		50 qts.		6,047 lbs.				(256 (260)
(*d*) Other									

The Johnston County negro agent says:

"Each club has had at least one demonstration a month, except June, during the canning season. The women and girls have canned, preserved and saved in various ways during my absence and reported the number of quarts canned. People are anxious to can but I have found it difficult to get people to can the products the proper way. I have tested jar rings, sterilized, blanched and packed properly as well as cooked properly, but many women want to do the same way they have always done, but gradually they are falling into line and I can see marked improvement in this work over last year's work.

"People have taken unusual interest in the saving of grapes. In one home there has been made and canned 50 quarts of unfermented grape juice, 46 quarts of preserves, and 11 quarts of grape paste.

"The people became interested when I organized clubs and more joined than I could manage. I appointed and instructed leaders to work with the club members. I spoke on food at public meetings, emphasizing the necessity of proper foods and those properly prepared; the benefit received from green and leafy vegetables; the correct proportion of foods according to age, weight, sex, occupation, climate and season; and the use of milk in the diet, especially for children."

267.1. Number of members enrolled { Women 879
Girls 933

Item	CLOTHING			
	Selection		Construction and remodeling	
	Women	Girls	Women	Girls
267 (271*b*). Number of result demonstrations started or under way	304	141	444	576
268 (272*b*). Number of such demonstrations completed or carried through the year	210	620	233	219
273. Number of garments and hats made by club members completing	297	143	201	29
274. Number of other articles made by club members completing	32	2	115	10
275. Total value of garments, hats, and other articles made by club members	$ 410	$ 215	$ 767	$ 75
276. Total cost of garments, hats, and other articles made by club members	$ 105	$ 50	$ 695	$ 182
277. Number* of homes influenced by home demonstration work to improve practices relative to clothing (include demonstrators)	422	325	232	89
280. Number of dress forms made according to instructions	1			

Item	CLOTHING					
	Renovation		Millinery		Other ...†	
	Women	Girls	Women	Girls	Women	Girls
267 (271*b*). Number of results demonstrations started or under way	260	552	42	93	34	37
268 (272*b*). Number of such demonstrations completed or carried through the year	250	220	23	14	9	8
273. Number of garments and hats made by club members completing	340	9	29	20	65	55
274. Number of other articles made by club members completing	216	3	10	6	125	72
275. Total value of garments, hats and other articles made by club members	$ 354	$ 25	$ 62	$ 34	$ 155	$ 78
276. Total cost of garments, hats, and other articles made by club members	$ 4	$ 3	$ 25	$ 15	$ 50	$ 12
277. Number* of homes influenced by home demonstration work to improve practices relative to clothing (include demonstrators)						
280. Number of dress forms made according to instructions						

Clothing work for negroes has been done in 4 counties with 608 women and 789 girls doing the practices.

The Columbus negro agent says:

"In conducting my sewing campaign we arranged our schedule with Miss Lankford, the white home agent. I conducted this work by meeting each club and spending two days in the community helping the women and girls to solve the clothing problem. I am very well pleased at the way the girls and women worked with clothing, it being the first time such work has been undertaken in the county among the colored people. Old clothes were ripped up, pressed and made over; new dresses, underwear and plain sewing along all lines was done in our clothing work. I also gave a talk on the importance of clothing in relation to the body. The points stressed in the selection of clothing were as follows: The purpose for which the clothing was to be used; the durability of the material; and the price of the goods. I also tried to illustrate how a person could be well dressed, yet not be expensively dressed. Only one dress form was made."

HOUSEHOLD MANAGEMENT AND FURNISHING

Number of club members enrolled in household management and home furnishings	(a) Women	552
	(b) Girls	931

Item	(a) Budget and accounts		(b) Equipment	
	Women	Girls	Women	Girls
(292b). Number of result demonstrations started or under way	419	892	315	557
(293b). Number of such demonstrations completed or carried through the year	81	26	185	361
Number of household furnishings made or refinished by club members completing			275	382
Total* number of homes influenced by home demonstration work to change practices relative to home management and furnishings (include demonstrators)			318	710

Item	(c) Kitchen arrangement		(d) Work planning		(e) Furnishing and decorating	
	Women	Girls	Women	Girls	Women	Girls
(292b). Number of result demonstrations started or under way	262	352	408	211	273	531
(293b). Number of such demonstrations completed or carried through the year	242	568	102	707	237	388
Number of household furnishings made or refinished by club members completing	100	39			290	115
Total* number of homes influenced by home demonstration work to change practices relative to home management and furnishings (include demonstrators)	437	138	96	42	81	763

Number of homes installing new equipment other than heat, light, water, and sewerage systems.

New equipment involved in question 301:

(*a*) Hand washing machines	20
(*b*) Power washing machines	
(*c*) Fireless cookers	37
(*d*) Pressure cookers	1
(*e*) Hand sweepers	
(*f*) Power vacuum cleaners	
(*g*) Kitchen cabinet	209
(*h*) Wheel trays	
(*i*) Iceless refrigerators	
(*j*) Electric or gasoline iron	52
(*k*) Miscellaneous	104
(*l*)	

Three counties undertook work in household management with 1,483 reporting.

The Johnston agent says:

"The women use more economy in furnishing their kitchens and front rooms than before. Hot and cold water has been installed in ten kitchens and ten more are ready waiting on mechanics and plumbers.

SANITATION

Number of members enrolled: (*a*) Women	958
Number of members enrolled: (*b*) Girls	1,205
Number of result demonstrations started or under way	905
Number of such demonstrations completed or carried through the year	5
Number of homes given instruction in home nursing and first aid	125
Total* number of homes influenced by extention service to adopt better sanitary practices	489
Number of homes installing sanitary closets or outhouses	468
Number of homes screened	553
Number of homes following other methods of controlling flies, mosquitoes and other insects	382

Sanitation has been taught by the negro agents in connection with foods and through clean-up campaigns.

The Wayne County negro agent says:

"My work in sanitation has been in the form of lectures and bulletins, as well as by example. I speak to my clubs and church meetings. I am stressing danger from the fly now. I sent for 600 bulletins, "The House Fly" and in my talks I give these out. We have a drive on now to screen all houses by the summer of 1924.

"I get my lectures on food and nutrition in at churches."

This comes from Columbus:

"I took up sanitation in connection with the cooking and home improvement work. We observed 'Clean Up Week.' Many people have done cleaning, but eight homes were screened from flies and mosquitoes. During this time there was a general cleaning in twelve homes in one community. Rubbish was removed; fences remodeled; ten families whitewashed the trees and beautified their homes by planting flowers and shrubs."

GARDENING

Item	(e)1 Part-year garden		(e) 2 All-year-round garden		(f) 1 Flowers, shrubs		(f) 2 Planting to a plan	
	Women	Girls	Women	Girls	Women	Girls	Women	Girls
(111b). Number of demonstrations started or under way	334	75	537	75	531	282	552	45
(112b). Number of demonstrations completed or carried through the year	334	75	337		331	207	259	
Total yield grown by club members	1,411 bu.	60 bu.	3,309 bu.		89	68		
Total value of crops grown by club members	$ 1,929	$ 90	$ 4,637	$ 275	$ 100			
Number selecting and saving seed and stock	259		204					
Number spraying or otherwise treating for diseases or insect pests	259		204					

Gardening has been very popular with the negro club members and three organized counties reporting work done with 1,021 gardens planted and 4,780 bushels of vegetables produced at a value of $6,931.00.

The Beaufort negro agent says:

"We had no trouble whatever in getting women to plant a garden. To everyone who promised to have at least six vegetables growing in her garden all the year, we gave a bulletin, 'The Farm Garden.'

"Two hundred eight enrolled. Only 56 of this number have an all-the-year-round garden; 52 had part year gardens with at least three vegetables growing all the year. Of the 208 planting, many of their first plantings failed on account of the dry season in some places, and near the coast the wet season. These women did not report because they thought they had lost their gardens, however, just at the time when they had given up, more seed were sent and as an incentive, each of the discouraged women was given a large package of which they planted again. Now, almost everyone who planted, has a winter garden. Fifty-six have an average of six vegetables and 152 have an average of three vegetables.

"At the first planting there were 208 gardens, with an average of eleven vegetables. From ten of these gardens the women canned over 2,000 quarts.

"We regret very much that the gardens at Belhaven failed almost completely. The Woman's Club there last year canned more than all the clubs in the county. After planting the garden, they bought a canner with a capacity of 72 cans and got all ready for the work but the weather was against them. However, they planted repeatedly and have been able to do some home canning on a very small scale. These women are not discouraged. They are planning their spring gardens and have asked that the district farm agent visit them and tell them just what their soil will bring and what to plant.

"L. E. Hall, the district agent, visited our county twice and helped us greatly with the gardens."

The Wayne negro agent says:

"In April the State Extension Service put on a garden drive. The club members and everyone who heard of the drive joined the garden club. Greater effort is being put forth in Wayne to have good gardens the year round. The drouth came near ruining the fall gardens. The summer gardens were especially good for several reasons. Mr. Denmark, Goldsboro Secretary of Chamber of Commerce, twice gave me all of the vegetable seed I could carry. I gave these seed out in the early spring and late winter. They were planted and did well. Some of the women said if they had not gotten these seed they would not have had a garden, because they had none and no money with which to buy any. These seed helped me in my effort to teach variety in the use of vegetables. Some of my members are eating new vegetables among which are carrots, beets and tomatoes."

The Columbus negro agent writes:

"Five women have set out fruit trees; 25 have set out grape vines and over 150 have cultivated gardens. The transplanting of trees has been encouraged, especially during October and November. In the spring a garden campaign was conducted at which time we had a visit by L. E. Hall, negro extension agent, and he spoke of reasons why every family should have a garden, and mentioned a long list of vegetables that could be grown successfully in this county. It is not very difficult to get spring gardens planted, but we do find it difficult to get people to plant fall gardens. Beautifying the home and school have also been stressed. At one school in the county the teachers and students grew lovely flowers according to my directions."

DAIRY WORK

Number of members enrolled in home dairy work { (a) Women 668
(b) Girls 185

Item	Milk production		Butter making		Cheese making		Standardizing for markets	
	Women	Girls	Women	Girls	Women	Girls	Women	Girls
Number of result demonstrations started or under way	610	75	560	75	12		10	
Number of such demonstrations completed or carried this year	475		425		2		10	

Item	Women	Girls
Number of cows owned	890	
Number added during 1923	252	
Number of pounds of milk produced	1,135,478	
Number of pounds of milk and cream sold	101,872	
Total value	$ 9,848.50	
Number of pounds of milk used at home	920,374	
Total value	$57,526.00	
Number of pounds of butter made	8,357	
Number of pounds of butter sold	1,581	
Total value	$ 2,394.90	
Number of pounds butter used at home	6,975	
Total value	$ 2,315.00	
Number of pounds cheese made	46	
Number of pounds cheese sold		
Total value		
Number of pounds cheese used at home	10	
Total value	$ 1.20	

The negro home agents report 668 women and 185 girls enrolled in home dairy work. These club members report owning 890 cows which produced 1,135,478 pounds of milk, which at 50 cents per gallon would be valued at $63,082.00.

The Columbus negro agent says:

"Dairy work was taken up in connection with the poultry work. The majority of my people own their own homes and in most cases own a family cow, as almost all of my work is done in rural centers. I tried to stress the importance of having milk and butter in the home and milk especially in families where there were small children. The number of cows owned and amount of milk and butter purchased were turned in to me by the secretaries of the clubs."

POULTRY WORK

Total number of members enrolled in poultry work { (a) Women 404
(b) Girls 173

Item	Standard bred eggs		Standard bred fowls		Males to improve stock	
	Women	Girls	Women	Girls	Women	Girls
(3f Number of result demonstrations started or under way in securing	212	15	45	1	26	
(4f. Number of such demonstrations completed or carried through the year	12		12	1	6	

Item	Culling flock		Using incubators		Other approved equipment	
	Women	Girls	Women	Girls	Women	Girls
(3f Number of result demonstrations started or under way in securing	128	1	2	1		
(4f. Number of such demonstrations completed or carried through the year	3	1	1	1		

	Women	Girls
Total number in flocks	47,998	151
Total number of flocks culled	120	
Total egg production	231,125	
Number of pounds of dressed poultry sold	10,000	
Number of pounds of dressed poultry used at home	14,859	
Number of pounds of live poultry	190,522	
Number of pounds of live poultry sold	107,632	
Number of dozens of eggs sold	30,296	
Number of dozens of eggs used at home	91,229	
Number of dozens of standard bred eggs used for hatching	661	
Number of standard bred fowls sold for breeding purpose	653	
Total value of all fowls sold	$4,876.70	
Total value of all fowls used at home	76,108.50	
Total value of all eggs sold	2,097.50	
Total value of all eggs used at home		

Poultry work bids fair to become a popular project with negro women and girls. Four hundred four women and 173 girls report as completing the work for 1923.

The negro home agent of Beaufort County says:

"Poultry was quite a hard proposition. Most of the women thought at first that their breeds were quite good enough. They were perfectly willing to increase their number but just could not see the necessity for the standard breeds.

"The very first thing we sought to do was to install the standard breeds in one or two yards in different communities. Many were attracted by their beauty and began to admire and ask questions concerning them.

"After we had succeeded in getting them interested we began showing the advantages of the standard breeds over their common breeds and what they would mean to them as a money crop. They became very much interested."

The Columbus County negro agent writes:

"The poultry work has been one of our big projects this year. I have worked to have the people at least make the first step toward gaining pure bred fowls. There is poultry in almost every club member's home, but in the majority of homes there is no special breed. I have tried to show that it was more economical and gave greater profits to raise some special breed. I cited instances that I have seen in the State of Virginia. I have given bulletins showing the different kinds of poultry and described each kind to the people. I am very well pleased at the beginning, because I feel that once the people get started with pure bred chickens, the scrub will gradually cease to be raised. I have secured pure bred chicks for six families. Ten families have purchased some pure bred eggs for breeding purposes. I think that in a few years this part of the work will be able to make a very creditable showing. I have noticed that in a majority of homes where eggs are produced more eggs are sold than are used at home and pork is used almost entirely. I am trying to encourage selling more fresh pork and using more eggs in the home."

FAIRS

There have been held for negroes in 1923 eight community and two county fairs besides the negro state fair. The community and county fairs are promoted and for the most organized by the negro farm and home agents and form an important part of community instruction.

The Wayne negro agent says:

"Our canning season is about over in September and we end it all with a community fair. We cannot have a fair for each club so we group the clubs and meet at a place which is most convenient for all. We get on very well with four community fairs and a booth in the county fair which is made up of the best products from the community fairs. Each member is urged to put on an exhibit. Last year our community fairs outdid themselves. The people seemed so glad of an opportunity to show what they had done. We have had two of our 1923 fairs up to date and they were an improvement on our 1922 fairs. They were not so sectional. The club members came from other places and some of them assisted in the judging.

"Last year we did not have any premium ribbon or money, but this year Mr. Denmark, who is Secretary of the Chamber of Commerce, has very kindly given us $40.00 for our fairs, $10.00 for each community fair. He attended our fair September 29th and gave the prizes himself. This act gave new life to the fair and each woman was fixed in her determination to win next year. We had a very successful fair last Saturday, October 6th, at Woods Chapel. Mr. Denmark could not be present but he gave me the $10.00 for the prizes, to send to the winners. I am holding the money until Friday when we have our third community fair with the hope that he will be present and present the prizes with this week's winners. I think it will give more impetus to the work for him to give the prizes in the meetings."

FARMERS' ORGANIZATION

The negro home demonstration agent is the only negro extension representative in Beaufort County and she has been trying to do her duty by the negro farmers as well as by the farm women. She gives the following account of trying to organize them:

"When I first spoke in the communities of a farmers' association and of having someone talk on better farming, many of the older farmers laughed. Some said, 'There is no need of my going. I know all about farming.' Others said, 'He cannot tell me anything about farming. He may tell me what he learned in books but I can show him how to farm.' Those who came felt differently but were afraid to try.

"Others had read of the boll weevil but they went about their work in the same old way. They did not realize that the boll weevil was already in Beaufort County because only a few had been slightly attacked by it. Now that the boll weevil has attacked every section in the county, they clamor for someone from the State Department to come and help them. At the last meeting more enthusiasm was shown than ever before and we feel that the association is on the road to success and that the farmers in the county will be greatly benefitted.

"The purpose of this organization is to put the farmers of Beaufort County on a solid and progressive basis. We hope to enroll every farmer in the county in order to develop curb marketing, better farming, diversified crops and an increased production and thereby assure for the farmers of Beaufort County all the benefits enjoyed by the farmers of other counties."

Respectfully submitted,

JANE S. MCKIMMON,
State Agent.

REPORT OF THE DIVISION OF AGRONOMY

To the Director:

The past year has been a busy one with the different workers of the Division of Agronomy. Main efforts have been devoted to the encouragement among farmers, through county agents and in other ways, of better systems of crop rotation; crop improvement for the farm; most economical use of fertilizers and farm manures; better methods of soil improvement; and of better methods of preparation, cultivation and other essentials of economic crop production.

Much progress has been made during the year as is shown by some of the results mentioned below. Supplemental to the other work with county agents and farmers there have been conducted on farms 32 demonstrations in soil fertility, lime and pastures; 12 in cotton seed improvement; 19 in small grain and corn variety and seed improvement; and 8 in soybean variety improvement.

Some of the more important work of the year in Agronomy extension has been as follows:

EXTENSION ACTIVITIES OF SOIL AGRONOMIST

Below is given briefly a list of extension activities along soil and soil fertility lines for the year:

Agents visited	8
Demonstrations visited	17
Farmers visited	11
Meetings attended	14
Attendance	645
Letters written	700
Conferences in office	130
Miles traveled by automobile	900
Miles traveled by railroad	4800
Soils examined	52

During the year the following articles have been prepared and published:

"Value of Nitrate of Soda for Cotton Under Boll Weevil Conditions."
"Fertilization of Cotton on Coastal Plain Soils."
"My Soil is Getting Better and Better."
"The Judicious Use of Fertilizers."
"Home Mixing of Fertilizers."
"Fertilization of Cotton on Piedmont Soils."
"The Use of Fertilizer Under Boll Weevil Conditions."
"Corn Fertilization."
"Growing Peanuts Profitably."
"Growing Summer Legumes for Soil Improvement."

KINDS OF FERTILIZER MIXTURES TO USE ON NORTH CAROLINA CROPS IN 1924 FOR BEST PAYING RESULTS—BASED UPON AVERAGES OF FIELD FINDINGS

More and more as the years come and go and the available reserve plant food supplies of many of our North Carolina soils grow smaller and smaller, as shown by the diminished yields on many farms, it becomes necessary for farmers to exercise the greatest possible care in buying fertilizers and fertilizing materials to have them most economically meet the needs of their growing crops. This is particularly essential when plant food constituents are selling high and when crops are bringing below a normal price.

Although the use of commercial fertilizers alone is seldom or never a means of building up the fertility of any soil, nevertheless their use on most of our North Carolina soils is essential in any rational system of soil building if farmers are to increase the productiveness of their soils in anything like a permanent and economic way. Their wise use coupled with proper system of crop rotation, in which legumes and other crops are grown and part of them and their residues find their way back into the soil to build up the organic resources of the soil, as has been repeatedly shown by the field results of the Division, is the plan when followed that is not only going to increase the fertility of the soil in a fairly permanent way, but is the one which will usually afford the greatest returns from the wise selection and use of fertilizers and at the same time give the greatest net results from the production of crops. The humus supplied by decaying organic matter of crops, crop residues, farm manures, straw, and vegetation of all kinds plowed back into and thoroughly incorporated with the soil to a large extent supplies the life of the soil. Its presence in the soil is essential to the growth and activity of soil bacteria, whose presence and normal activity is necessary for them to be in a live healthy condition. Generally, outside of soils recently reclaimed from under water, a dead soil is one deficient in organic matter. A soil in this condition is usually a very poor yielding one. Even when the best kinds of fertilizers are used on them and conditions of preparation, seeding and cultivation are properly looked after, they do not respond nearly so bountifully to additions of fertilizers as do soils that have been enlivened by the presence of a goodly supply of well rotted organic matter. Soils are like animals in one respect, if they are to perform their best work they must be maintained in a good healthy condition and to do this with soils they must contain a fair amount of humus or well rotted organic matter.

Keeping clearly in mind the prime importance of this material in maintaining or building up soil fertility, we now turn to the question of immediate annual returns. Ordinarily, the farmer who sacrifices everything, including the future productiveness of his soil, in getting the

highest possible annual returns is making a great mistake. The wisest policy is to so fertilize his crops and handle his soil that in getting goodly yields his soil by the method indicated above will naturally be increasing in productiveness from year to year. In using commercial fertilizers, as a general thing, different crops grown on different soils will each have different requirements. As the land is improved, its requirements for the additions of the different plant food constituents (nitrogen, phosphoric acid and potash) may change somewhat. For instance, as the organic matter supply of the soil is increased, the percentage of nitrogen required to be added in fertilizers or manures may be in many cases decreased. The same may hold true with reference to potash applications with soils now containing vast supplies of this constituent in a form which plants cannot at present utilize because of its insoluble forms. It may be that when such soils are well stored with decaying organic matter these vast resourses will be made available to growing crops to such an extent as to make it possible to reduce the potash requirements from commercial sources. However, at the present time and probably for sometime to come in most cases for average soils low in organic matter, it is suggested, after thorough consideration of the findings of field experiments with different crops produced on the more important types of soil occurring in North Carolina, South Carolina and Georgia that the following formulas, which are more concentrated than those generally used, be purchased by farmers who use fertilizers during the coming year for fertilizing their crops on average soils of the Coastal Plain, Piedmont and Mountain sections of the State:

Crop	Region	Soil Type	Fertilizer Mixtures
Irish potatoes	Coastal plain	Sandy loams	6-7-5
Truck crops	Coastal plain	Sandy or sandy loams	7-5-5
Tobacco	Coastal plain	Rather sandy but containing a moderate amount of organic matter	8-3-5
Tobacco	Coastal plain	Sandy loams	8-4-4
Sweet potatoes	Coastal plain	Sandy or sandy loams	8-4-6
Corn, cotton and small grains	Coastal plain	Sandy loams	8-5-3
Legumes	Piedmont and mountain	Loams	10-2-4
Cotton	Piedmont	Clays and clay loams	10-4-2
Tobacco	Piedmont and mountain	Sandy loams	10-4-4
Truck corps	Piedmont and mountain	Clays and clay loams	10-5-3
Sweet potatoes	Piedmont and mountain	Sandy loams	12-4-4
Corn and small grains	Piedmont and mountain	Clays and clay loams	12-4-0
Legumes	Piedmont and mountain	Good clays and clay loams containing an average amount of organic matter	12-0-4
Cotton	Piedmont	Light silty slaty loams containing moderate amount of organic matter. On poorer soils a side application of some soluble form of ammonia will frequently be advisable for best results	12-3-3

In the mixtures given above, the first figure in the last column is percentage of available phosphoric acid; the second ammonia; and the third potash.

These formulas for different crops indicated are recommended for use by North Carolina farmers for the year 1924. They were agreed upon for use on soils in an average state of productiveness by the official workers of North Carolina, South Carolina and Georgia in a conference held in Atlanta, Ga., on October 16, 1923, after a thorough consideration of the findings of carefully conducted field experiments through a number of years in the three states. Later the Association of Southern Fertilizer Manufacturers agreed to concentrate upon the manufacture of these formulas as far as possible and to encourage their sale to customers in these States for the crops indicated.

EXTENSION WORK WITH FIELD CROPS

The extension work in field crops has consisted of crop variety, seed improvement, and culture demonstrations. The Division has coöperated with county agents, vocational schools, and organized communities in the advancement of better field crop practices, and has coöperated, too, with other divisions of the Extension Service in presenting information for the advancement of agriculture in general. This has included work on boll weevil control, pasture and feed crops, and marketing.

The community variety demonstrations are conducted for two purposes; first to establish one standard variety in each community or county of the State; and second to assure the maintenance of a high standard in the variety chosen and to prevent the entrance of inferior varieties. When a variety demonstration is made to establish one standard variety, a few of the best varieties grown in the South are planted in the community along with the best local varieties. The variety yielding the greatest money value per acre is chosen as the standard and the growers are advised to supply themselves with the best available seed of this variety. A record is kept of each grower and the amount of improved seed he secured. The following season, the community is visited to give demonstrations on the saving of seed from the best plants in the field. In this way growers are acquainted with the type of plants to select and the qualities required in a good variety.

During the past winter, meetings were held in sixteen counties to discuss the results of the community demonstrations and to make arrangements for new work. During the past season, thirty county agents and five vocational schools have been visited for the purpose of conducting seed-improvement work with cotton. Definite results have been secured from cotton variety demonstrations in thirteen communities of nine counties. Fifteen additional communities of eight counties have received help in field demonstrations for the selection of good cotton seed from approved varieties.

Community corn variety demonstrations were started in seventeen communities of twelve counties and definite results have been secured from all except one which was destroyed by crows in the spring. A special effort has been made to secure a good attendance of local corn-growers for field meetings held at the demonstrations. This year, the field demonstrations were well attended by farmers both at the late growing season and at harvest.

Small grain variety demonstrations were conducted in three communities and six communities of four counties were visited to inspect the condition of small grain for seed purposes. In this work, the State Seed Laboratory has coöperated by determining the purity and germination of small grain seed grown by growers of the State. In this way an approved list of 3,800 bushels of wheat, 8,100 bushels of seed oats, and 5,600 bushels of abruzzi rye seed were listed and distributed to county agents and growers.

SUMMARY OF SOME OF THE DEFINITE RESULTS ACCOMPLISHED IN COMMUNITY CROP IMPROVEMENT EXTENSION WORK

In Union County.—As a result of three community cotton variety demonstrations in 1922, field meetings at the time of harvest and meetings throughout the county during the winter to present the results, the entire county adopted one standard variety. In coöperation with County Agent Broome, 178 cotton growers of the county were supplied with 2,000 bushels of pedigreed Mexican Big Boll cotton seed. Seventy-two of the growers made satisfactory written reports this fall of their results with the cotton. Thirty-three others have made satisfactory verbal reports to the county agent and cotton specialist. Before the cotton was picked, efforts were made to impress upon each grower the importance of keeping the seed pure at the gin. Up to date a little more than 5,000 bushels of seed have been reported as saved pure at the gin and many of the growers say their entire lot has been spoken for by neighbors.

In Sampson County.—The community around the Salemburg High School near Roseboro, has adopted the Cleveland Big Boll variety of cotton seed as their standard. Last year, approximately 400 acres of pure seed were planted. Eight growers of the community took advantage of the field selection demonstrations and saved selected seed last fall. The entire lot of seed harvested from 400 acres was absorbed by the community, making it practically solid for this variety. This fall twenty-six growers took advantage of the field selection demonstration and saved good seed.

In Edgecombe County.—The Edgecombe Seed Breeders' Association supplied to growers of the State during the past winter and spring 11,000 bushels of pure recleaned cotton seed, 500 bushels of pedigreed soy-

beans, 156 bushels of seed corn, 400 bushels of seed oats, and 175 bushels of pedigreed abruzzi rye. Their production this season will be double that of last year. This Association has become a valuable distributing center for Edgecombe and adjoining counties.

In Halifax County.—In this county, a group of fourteen growers have organized around their county agent for the purpose of improving the field crop seed of that county. This Division has coöperated in perfecting the organization and in securing the best available seed. This fall, field demonstrations were given in centers represented by these men for the purpose of teaching the methods of improving the standard variety of cotton, corn and peanuts. For the next year, it is planned to induce the growers of the county to absorb the production of these men, provided their seed continue to come up to the standards required.

INTERESTED IN GROWING BETTER COTTON. THESE ARE MEMBERS OF THE EDGECOMBE SEED BREEDER'S ASSOCIATION HOLDING A FARM MEETING

In Chowan County.—In this county, the Division of Agronomy is coöperating with County Agent N. K. Rowell in the improvement of corn and peanuts.

Among the other counties given aid in the improvement of one or more field crops are: Wayne, Richmond, Rowan, Iredell, Martin, Person, Alamance, Wake, Anson, Mecklenburg, Gaston, Davie, Johnston, Haywood, Stanly, Craven, Duplin, Greene and Northampton.

An effort is being made to stimulate better work in the different counties and communities of the State by using their seed in community variety demonstrations and in supplying them with the results along with their standing, the yield per acre being the principal basis of comparison.

The Division has coöperated with the State Fair and several County Fairs by furnishing judges and supplying county agents with educational exhibits. Collections of seed samples representing the best standard varieties of field crops were supplied to twenty-four vocational high schools during the fall of 1922 and twenty-five schools in 1923. Several of these schools have also been supplied with charts and other information for instructional purposes.

EXTENSION FIELD WORK IN SOILS AND CROPS

The main problem being attacked in this work is the improvement of North Carolina soils; so as to produce more crops per acre and to product them more economically. About nine-tenths of our farmers' income comes directly from the soil in the form of crops. All agriculture is dependent on the soil, therefore no agriculture can be permanent that does not improve, or at least take care of the soil. There is room for improvement in this regard on nearly every farm in North Carolina.

BUILDING BETTER SOILS IN CLEVELAND COUNTY

This demonstration in soil building shows the plowing under of vetch under the direction of the county agent.

One of the greatest needs of North Carolina soils is for more organic matter. The only way that we can supply enough of this material to build up our soils is to turn under some cover crop. We do not produce enough animal manures to even maintain them in their present state of fertility. Since legumes can supply organic matter to the soil and at the same time supply nitrogen from the air, they should be used in preference to non-legumes when possible. No crop, not even a legume crop,

adds anything to the soil when it is cut off except in the organic matter contained in it and other parts left on the land after the crop is removed. Even if the crop be fed to animals and the manure returned to the land, over half, ordinarily, of its value will be lost. Therefore, the only way to improve our soils is to grow cover crops, preferably legumes for turning under. We believe further that no great increase in fertility is to be made by the spasmodic growing of legumes. On the other hand, every farm should follow a definite crop rotation; designed for soil improvement, self support, and with a reasonable proportion of money crops.

Commercial fertilizers pay well in North Carolina when used wisely. Their use is closely related to soil improvement, though it is common to depend too much on them. Recommendations as to fertilizers are based upon results secured by the Division of Agronomy of the North Carolina Experiment Station. One especially important phase of this subject is the fertilization of cotton under boll weevil conditions. The home mixing of fertilizers is advocated where cheaper to do so.

Lime benefits all crops directly or indirectly on our more acid soils when grown in a good rotation. On nearly all soils of the State, it benefits legumes directly, and through them its benefit can be passed on to other crops like cotton, small grains and corn.

Improved seed is next in importance to a good soil in economical crop production by North Carolina farmers.

Every farm should have enough permanent pasture for a reasonable amount of livestock. As a rule many farms are lacking in this respect.

All the above subjects have been brought to the attention of farmers by means of personal visits, indoor meetings, field meetings, field demonstration, fair exhibits, judging at fairs, newspaper articles, and extension circulars. The work has been done mainly in coöperation with county agents, agricultural high schools, and fairs. The following twenty-nine counties have been visited: Alamance, Alexander, Bladen, Beaufort, Carteret, Caswell, Davie, Duplin, Durham, Guilford, Henderson, Hertford, Iredell, Johnston, Jones, Lincoln, Martin, Mecklenburg, Northampton, Onslow, Pamlico, Pitt, Richmond, Rowan, Scotland, Transylvania, Union, Wake and Washington.

One hundred and seventy-three farms have been visited. Advice on several subjects relating to soils, fertilizers, lime and crops were given at each farm. There visits were made in the same counties where meetings and demonstrations have been conducted.

Ninety-four farmers meetings were held during the year. Indoor meetings were held most in the winter and late summer, when farmers are not very busy. These meetings were held with the attendance varying widely, depending upon the weather, condition of the roads, density of population in the community, whether there were any rival attractions at the time, whether the meeting included a picnic or barbecue, and how

well the meeting had been advertised. However, the size of the crowd has little to do with the amount of good that may be done at a meeting. One of the best pieces of work done by the Extension Agronomist so far is the introduction of improved Mexican cotton seed into Alamance County which was done as the result of a meeting at which only three were present. Field meetings were held in the spring and fall, either at one of the regular demonstrations, or at a farm where there was something of value and of interest to show. The total attendance at meetings was 2,502.

A FIELD DEMONSTRATION
The value of lime and clover being explained to a group of Alamance County Farmers.

Thirty-two field demonstrations are in progress in eighteen counties to show that lime is of value in growing legumes, and that the legume crop when turned under will materially increase the yield of crops following. A good example of these demonstrations was one begun on the farm of U. T. Belk in Union County, in May, 1921. The soil of this farm is of the Alamance Gravelly silt loam and is very poor. The rotation of crops in the demonstration consists of soybeans, wheat, red clover, crimson clover, corn. The fertilizers used per acre are:

For soybeans—200 pounds 16 per cent acid phosphate and 100 pounds cottonseed meal.

For wheat—120 pounds of a 10-0-4.

For red clover—120 pounds of a 10-0-4.

All plats for the same crop were fertilized alike.

The results thus far secured are as follows:

Plat No.	Treatment per Acre	Yield of Crops per Acre		
		1921	1922	1923
		Soybean hay lbs.	Wheat bu.	Red clover hay lbs.
1	3000 lbs. limestone	Turned under	11.3	4,640
2	3000 lbs. limestone	9504	8.3	4,288
3	No lime	Turned under	9.3	1,680
4	No lime	6336	6.8	872

The soybeans were weighed partly green, and the figures are given simply to show that lime increased the yield about 50 per cent. As may be seen the effect of the different treatments on wheat is marked. However, all wheat in the county in 1922 produced a great amount of straw, which was poorly filled out. Had the heads in this demonstration been properly filled, the yields would have been doubled. The yields of red clover speak for themselves. This demonstration will be sown in crimson clover in the fall of 1923, followed by corn in 1924.

In December 1922 and in January 1923 several cropping systems for different parts of North Carolina were worked out in coöperation with county agents. These cropping systems include in the rotations, first of all crops for soil improvement, then crops for food and feed, and money crops. Provision is made for a orchard, garden and pasture. The number and kind of livestock supposed to be carried with each system was specified. One of the cropping systems is being tried in Bladen and another in Alexander County. The farm owners have agreed to devote the whole farm to it. Several more farmers are planning to adopt such cropping systems this fall on their farms. It is felt that this work will bring about good results, since all the principles of soil conservation and improvement, diversification of crops, growing food and feed at home, and the proper use of fertilizers are included in the program.

Two pasture demonstrations were started last fall. At present both are doing nicely.

The Extension Agronomist has staged exhibits at three county fairs, acted as judge at four county fairs, and superintended the corn show at the State Fair. The exhibits were planned to show important facts about the problems with which the Division is dealing; and it has received much favorable comment. This is one of the most effective ways to reach large numbers of people; many of whom would not otherwise be reached at all. While judging at a fair, one has a great many opportunities to point out the value of good farming methods in the most economic production of crops of high yield and quality. The corn show at

the State Fair has been greatly improved and is getting to be more and more a feature of real educational value. It is estimated that 3,000 people during the year at the very least have been given instruction at fairs.

During the year nine articles on timely agronomy subjects have been prepared and sent out to the weekly newspapers of the State. These have been well received most of them being printed by practically every weekly paper in the State.

About 2,000 outlines of cropping systems have been distributed to farmers through county agents. The Extension Agronomist has prepared, which was also published, Extension Circular 136 on the growing of red clover.

The Extension Agronomist attended the district meetings of county agents at Wilmington in July 1923, at Jackson Springs in August 1923, and the State Meeting at Raleigh in December 1922.

SUMMARY OF EXTENSION ACTIVITIES OF EXTENSION AGRONOMIST IN CROPS AND SOILS

Counties visited, 29.
Farms visited, 173.
Meetings held, 94.
Total attendance at meetings, 2,502.
Average attendance at meetings, 26.
Field demonstrations, 36.
Visits to demonstrations, 80.
Exhibits at fairs, 3.
Fairs visited, 5.
Number of people reached at fairs, 3,000.
Newspaper articles written, 9.
Leaflets distributed (Cropping Systems), 2,000.
Extension circulars written, 1.
Miles traveled by automobile, 3,402.
Miles traveled by railway, 9,069.

EXTENSION WORK WITH SOYBEANS HAS BORNE FRUIT

A few years ago, when the Division began its activities to bring to the attention of the farmers of North Carolina the value of soybeans for more general use, their growth was chiefly confined to a rather restricted area in the northeastern corner of the State. Since that time, through the persistent efforts of workers of the Division and others appreciating their value coöperating, their growth has not only spread to all sections of North Carolina but to states to the south, north and west of us, until now the virtues of this crop are appreciated by thousands of farmers who a few years ago hardly knew of the crop, much less its value in general farming operations.

In a recent issue of the "Seed World" of Chicago, in speaking of the value of soybeans, it is stated. "The seed growers of North Carolina started it and the seed growers of Ohio, Indiana, Illinois and Iowa have pushed it along." From the results of work in North Carolina, these corn-belt states have begun to fully appreciate the value of this crop and have pushed its growth tremendously during the past few years, until now there are thousands of acres devoted to this crop in each of these states, while a few years ago the crop was hardly known there. Their farmers and those of other states south and west have been buying seed for planting purposes from the North Carolina farmers now for a number of years to get well started in the growth of this splendid legume.

North Carolina farmers this year planted over 200,000 acres to this crop which has been used for the production of seed, for hay and for soil improving purposes. Even considering the marvelous increase in acreage in North Carolina during the past few years, its acreage could still be greatly increased with benefit to many farmers of the State.

Extension Work with Tobacco

During the year, an extension worker in tobacco culture has been put on. He has been kept busy in the field of twenty counties, mainly located in the new belt, most of the time in supplying information to farmers with reference to best cultural methods to follow; varieties to plant; best kinds of soils to plant on; and the kinds and amounts of fertilizers to use for best paying results with different soils. He endeavored to get at least one good farmer in each county to follow his instructions. In this way it was felt the better practices would be taken up in a short time by others of the tobacco counties in which work was done. Farmers were encouraged, generally, to grow fewer acres and to make the acres planted to produce good yields of a high quality. It has been felt that this was the proper plan to follow, as it was the one that will be safest not only for the individual tobacco farmer but for growers as a whole.

Some fertilizer tobacco demonstrations have been conducted in Bladen county, the results from which have shown the value of the presence of magnesia used in connection with a complete fertilizer in the production of this crop. These demonstrations, too, have shown that as much as four or five per cent of potash in the fertilizer mixtures for tobacco grown on the sandy loam soils of that section of the State is generally desirable.

The tobacco specialist and Mr. E. G. Moss have prepared two circulars, one giving instructions for the selection, preparation and fertilization of tobacco plant beds, and the other information on the growing and fertilizing of the tobacco for best paying results. As tobacco is next to cotton, the most important money crop in the State, it is very impor-

tant that timely advice be given to growers at this time in order that they may get most out of the production of this crop on their farms.

COTTON BOLL WEEVIL ACTIVITIES

Since the cotton boll weevil is the most serious pest North Carolina cotton farmers have ever had to contend with, and, further, since proper cultural methods have been found to be quite effective in most cases by farmers to the south of us, considerable attention has been devoted during the year to giving growers of the State reliable information with reference to those methods and precaution which have been found thus far most practical to follow by cotton growers in reducing to the minimum the ravages from this pest which has now made his way into almost all cotton growing sections of the State. They are as follows:

1. Be calm under attack and do not become stampeded. Meet his attack with courage if you wish to win out. Reduce the acreage commonly planted and cultivate intensively what is put in to get large yields per acre.
2. Develop a fairly fertile soil as one of the very best assets under boll weevil conditions.
3. The most effective means of combatting him will be by the use of generally good methods of farming, which have heretofore been recommended.
4. Plant only on well drained upland lands which are in a moderately good state of fertility. One will run a big risk to plant cotton on bottom lands or lands near swamps and other wooded areas, particularly so in the southeastern part of the State.
5. Use at least 600 pounds of moderately quick acting fertilizer to the acre containing a somewhat larger proportion of the phosphoric acid than is ordinarily used, avoiding the use of fertilizers too rich in nitrogen, especially for soils rich in this constituent. With soils high in organic matter do not make a side application of soluble nitrogen in addition to the fertilizer put in at planting, especially is this so made as late as June 15 to July 1.
6. Break land for cotton early in the fall or winter, with a two-horse plow, prepare and plant as early in the spring as ground is warm enough to germinate the seed and plants to grow off well. Cultivate well, frequently and shallow after the crop is up, thereby keeping plants growing rapidly and vigorously from the start. This will mean smaller acreage of cotton to the plow than has generally been cultivated in the past on farms of the State.
7. Keep fields free from rubbish, such as grass, weeds and bushes by burning these during the winter to kill out the weevil that may be spending the winter in them.
8. With early spring infestation, pick up and destroy all squares that have been punctured. These will usually be at the end of rows near woods, hedgerows, stumps, or fodder stakes. In planting use a plenty of well matured seed.
9. Use ample seed in planting to secure and maintain a moderately thick stand of the plants in the rows. Chop to a stand of one to two plants, not exceeding 8 to 10 inches between hills, just as soon as cotton is large enough to chop. This will cause the plants to make smaller growth and make the cotton fruit and mature quicker. Give the cotton plenty of space between the rows (about 3½ to 4 feet) so sunshine can get in to dry up infested bolls and open early the sound bolls.

10. Reduce the cotton acreage and grow as far as practical sufficient food and feed crops to meet the needs of the farm.

11. Avoid excessive rank growth of cotton plants as this will give a place for the weevil to hide from the heat and get plenty of food and moisture for their growth and multiplication.

12. Use for planting purposes, recleaned and well matured seed of early and rapid fruiting and fairly early varieties like Cleveland Big Boll, Mexican Big Boll, Lightning Express, or Edgecombe-Cook, secure the seed for planting purposes from the very best sources.

11. After you have gotten good seed make it a better yielder from year to year by field selecting seed each year from plants in the field that have set and opened the largest amount early of bolls under boll weevil conditions.

14. Whenever feasible, after the cotton is picked, immediately destroy cotton stalks, weeds, etc., chopping up the stalks and other material and plowing them in fairly deep in the soil during the fall before frost, then put the land in suitable cover crops. This will destroy the winter homes and food plants of the weevil.

15. Establish on every farm a good crop rotation best suited to the particular conditions and needs of the farm, in which suitable leguminous crops, growing with the main money crops, are utilized after growth in such a way, as far as practical to do so, so that they will aid in building up the producing power of the soil. This cannot ordinarily be done unless it is planned in advance that a certain portion of the legumes grown shall go back into the soil for soil-improving purposes.

16. Remember that to a large extent, outside of poisoning, all successful methods of growing cotton under boll weevil conditions are based largely upon getting a large crop set early before the boll weevil has had a chance to multiply in sufficient numbers in the cotton field to become destructive.

Even if the boll weevil were not present, most of the suggestions given above would be good practices for farmers to follow in the production of cotton under North Carolina conditions.

In closing this report, I wish to give credit to all the workers of the Division for the faithful and conscientious way in which they each have performed the work of the Division in which they were engaged. The work has been carried on aggressively by W. F. Pate, L. G. Willis, S. K. Jackson and H. B. Mann in soil fertility; by R. Y. Winters, P. H. Kime, S. W. Hill and G. M. Garren in crop improvement; by S. F. Davidson and W. A. Davis in soil survey; and by E. C. Blair in general Agronomy extension.

Respectfully submitted,

C. B. WILLIAMS,
Chief, Division of Agronomy.

REPORT OF THE ANIMAL INDUSTRY DIVISION

To the Director:

The following report of extension work from December 1st, 1922 to November 30th, 1923 shows clearly that good headway is being made both in organizing these activities and executing them. All work in Animal Industry Extension is on a clear cut project basis, not only making it possible to do more effective work but to make it much more satisfactory for all workers concerned. All fundamental projects are enumerated and a summary made of same.

The work which each specialist has conducted during the past year is given on the following pages, each occupying a definite section of the report, the same as in reporting research and experimental work. If you are desirous of securing further information on any special section of the report or on the report as a whole I will be pleased to furnish it upon request from you.

Some few projects have been consolidated and a few of the minor ones eliminated. Otherwise, the work has gone forward in very much the same manner as last year except that I feel that more comprehensive work has been accomplished.

The report of the workers is as follows:

DAIRY CATTLE EXTENSION

J. A. Arey, *In Charge*

Assistants: A. C. Kimrey, F. R. Farnham, H. L. Wilson, W. L. Clevenger, and W. A. Graham

I. Herd Record Work

A special effort has been made this year by the Dairy Extension Office to improve the feeding methods of the average dairyman in the state. No doubt proper feeding will practically double the production of the average North Carolina cow which would put the dairy industry on a profitable basis. The importance of liberal feeding of home grown feed stuff has been stressed in all of the dairy schools. Feed exhibits at the various fairs have been used as a means of keeping this subject before the farmers. A campaign on feeding has been carried on during the entire year through the press and the North Carolina Dairy Extension News Letter which has a circulation of 2,200. Every practical phase of feeding the dairy cow has been discussed and considered therein.

As an illustration of what may be done definite assistance was rendered one herd in the central section of the state. A careful survey

showed that this herd was losing around $100.00 per month. This loss was partly due to low production and the keeping of too many bulls for the size of the herd. Seven low producing cows were replaced with five good ones and two young bulls were slaughtered and another one sold. A change was recommended in the grain mixture which resulted in a saving of about $10.00 per month. As a result of this work, simple though effective, this herd is breaking even whereas there was $100.00 lost per month before.

Special Dairy Barn for Holsteins Under Construction at Greensboro

In order to obtain more local data on feeding dairy cattle a supply of milk and feed record sheets was printed. Ten men distributed throughout the state are now keeping milk and feed records under the supervision of the Dairy Extension Office. This work will be continued for at least one year in order to obtain records on the various herds for a whole lactation period. It would be desirable to take on a larger number of herds if sufficient clerical help was available to compute the records. This is no doubt valuable work and too much of it can not be done.

II. Bull Associations

Due to some friction which has arisen in some of the present bull associations no special effort has been made to increase the present number. However, sixteen pure bred bulls have been placed by the Dairy Extension men. The majority of these were purchased by communities which will exchange bulls after two years of service.

III. Dairy Construction Work

The entire supervision of this line of work was turned over to Mr. Raney during the year. However, due to the personal contact

that the Dairy Extension men have had with the farmers numerous calls continue to come in to the office for assistance.

The following assistance has been rendered:

Barn construction	11
Barns remodeled	10
Silo construction	23
Building and remodeling milk houses	11

Part of the above work was done wholly by the Dairy Extension Office and part in coöperation with the Division of Farm Engineering.

IV. CHEDDAR AND SWISS CHEESE DEVELOPMENT

The progress made in Cheddar cheese development during the past year has not been as satisfactory as desirable to be. Due to an insufficient supply of milk several of the factories did not operate last summer. The low cheese market during the summer of 1922 was largely responsible for the decreased milk production. In Ashe and Alleghany Counties factories located in remote sections could only pay from 9 to 10 cents per gallon for milk which was not sufficent to cause farmers to produce milk. During the summer of 1922 several factories located in these counties which were receiving a limited supply of milk operated only three times a week. This resulted in making a high acid or a low grade cheese.

Mr. F. R. Farnham was transferred on March 1st of this year from cheese manufacturing to dairy production work, leaving Messrs. Wilson and Graham to devote their time to those factories which would have a sufficient amount of milk to make it possible for them to operate economically and turn out a good quality of cheese. The results obtained from this change have been very satisfactory. Mr. Farnham has placed 48 grade and pure bred cows and heifers in cheese factory territory, and also four pure bred bulls.

The future success of the cheese industry of this State depends upon the importation of more real dairy cows which should be located near the cheese factories. The cheese market has improved during the past summer, making it possible for the factories to pay from 15 to 19 cents per gallon for milk. These factories need a larger volume of milk so that the cost of manufacturing can be reduced.

A three weeks' Cheese Maker's Short Course was held at Boone during the latter part of February and the early part of March. Eight men attended this school which included both practical and technical instruction in the handling of milk and the manufacturing of cheese. During this school a series of lectures was also given on dairy production problems and care of milk on the farm. At the close of the school a North Carolina Cheese Makers Association was organized for the purpose of encouraging the development of the cheese industry by grading, branding, and developing markets for North Carolina cheese.

The first scoring contest of this organization was held at Morganton on May 15th, the second at Lenoir on July 15th and the third and final contest for the year at Asheville on November 15th. This meeting was attended by 20 cheese makers and managers. Dr. Larson of the Dairy Division, Washington, D. C., L. H. Marlatt, Georgia Cheese Specialist, and G. N. Toby, Tennessee Cheese Specialist, were present and talked during the meeting.

The average score on cheese at all nine of the factories for the year was 89.82.

The average score of the four factories that entered cheese at all three scoring contests was 90.26.

These contests have been very instructive and valuable to the cheese makers as they have a chance to compare the quality of cheese from the various factories and determine the cause for defects when they occur. The Delwood Cheese Factory won the silver trophy awarded this year for the highest scoring cheese which was 92.10.

The Brushy Fork Cheese Factory was rebuilt during the year on the main highway. Last year this factory was one of the smallest in the State but it has now grown to be the third largest in the State.

The farmers of Horse Shoe neighborhood in Henderson County have a limited and unstable market for milk. A factory was erected at this point and opened on June 4th. The patrons are well pleased with the results and expect to increase the supply of milk for another year. Two other neighborhoods have made application for assistance in organizing cheese factories.

The Swiss Cheese work has been under the close supervision of the Federal Department of Agriculture and in following instructions from them only a limited number of cheeses have been made, 80 per cent of which graded fancy and No. 1. Up to date six of these cheeses have been sold at an average price of $.365 per pound. The total returns from these six cheeses amounted to $205.36. The same amount of milk used in manufacturing Cheddar cheese would have returned $97.25 which shows that milk converted into Swiss cheese returns approximately double the amount as when manufactured into Cheddar cheese.

V. Dairy Schools and General Meetings

The key note of dairy schools this year was economical feeding and better care of cream on the farm. The importance of growing an abundant supply of feed was stressed at each meeting, also the necessity of comfortable quarters for cows during the winter months. Messrs. Arey, Kimrey and Farnham conducted the following dairy schools and general meetings:

Fifty-nine schools were held in thirteen counties with a total attendance of 4,028.

Twenty-two general meetings were held and attended at which there was an attendance of 6,247 farmers.

The total number of schools and meetings held and attended by the various workers in the office of Dairy Extension amounted to 195, at which there was an attendance of 22,629.

VI. PLACING DAIRY CATTLE

During the year 85 pure bred cows and heifers and four pure bred bulls have been placed by the head of the office. In addition, 16 bulls and 168 cows were placed by other members working with Dairy Extension activities. Mr. Arey also assisted in conducting a sale of 68 Jersey cattle at Charlotte and 30 Guernsey cattle at Mocksville. These sales being held under the auspices of the State Associations representing these breeds.

VII. MILK UTILIZATION

Mr. Arey, in coöperation with the Home Demonstration workers, assisted in organizing an extensive milk campaign at Charlotte during the latter part of March. This was one of the best organized and most effective campaigns ever put on in the State.

Letters commending this work were received from numerous sources among which were the Charlotte Chamber of Commerce, the Mecklenburg Dairy Co., and prominent dairy farmers.

Mr. A. C. Kimrey, in coöperation with the Home Demonstration Agent at Wilmington, held meetings in all of the schools in New Hanover County at which the food value of milk was discussed. According to the County Agent in that county, the dairymen have informed him that this work was responsible for a large increase in milk consumption in that county.

VIII. FAIRS

Exhibits and demonstrations were put on by Dairy Extension men at fairs and conventions as follows:

Sandhill Fair	Pinehurst
Wayne County Fair	Goldsboro
Livestock Meeting	Statesville
State Bankers Convention	Pinehurst
Farmers' Convention	Raleigh
County Agents' Convention	Raleigh
Picnic Swannanoa	Swannanoa
Picnic Statesville	Statesville
Picnic Willard	Willard
First National Bank	Boone
Total	10

The exhibit placed in the bank at Boone assisted greatly in placing Ayrshires in Watauga County.

Two scrub bull trials were held during the year, one at Statesville during the State Live Stock Meeting, and the other at Raleigh during the County Agent's Meeting. The results of these two trials received wide publicity and no doubt did much good in placing the facts about the scrub and pure bred bull question before the public.

IX. CREAMERY MANUFACTURING

On August 1st Mr. W. L. Clevenger, who was formerly Federal employee, dividing his time between North Carolina and Tennessee in creamery manufacturing work, became affiliated with the Animal Industry Division. His entire time is given over to the creamery problems of this State.

The creamery work has progressed nicely during the year. Most of the creameries have enjoyed an increase in production and are in good financial conditions. The butter production in North Carolina in 1922 was approximately 1,530,994 pounds, an increase of 13.77 per cent over 1921. The average price paid for butterfat was 38 cents. Some creameries averaged higher. Mooresville Coöperative Creamery, Shelby Creamery and Mooresboro Creamery averaged 40 cents. The value of the butter made in the various creameries of the State f.o.b. plant was $590,000.00. Approximately 4,000 farms produced this product. This product was made in sixteen plants, most of which make butter only.

All the creameries in the State are now pasteurizing cream made into creamery butter except Mooresville Coöperative Creamery and this plant is now making preparations to begin.

The following creameries are operating in the State:

Wilkes County Coöperative Creamery, N. Wilkesboro, N. C.
Lincoln Creamery and Ice Cream Company, Lincolnton, N. C.
Caldwell County Creamery, Lenior, N. C.
Carolina Butter Company, Charlotte, N. C.
Alamance Coöperative Creamery, Burlington, N. C.
Peoples Ice Cream Company, Rutherfordton, N. C.
Mooresville Coöperative Creamery, Mooresville, N. C.
Shuford Dairy Company, Newton, N. C.
Shelby Creamery, Shelby, N. C.
Harden-Sumner Ice Cream Company, Statesville, N. C.
Mooresboro Creamery, Mooresboro, N. C.
Monroe Creamery, Monroe, N. C.
Davidson County Creamery, Lexington, N. C.
North State Creamery Company, High Point, N. C.
Pine State Creamery, Raleigh, N. C.

Movement is under way to install a combined creamery and milk distributing plant in Gastonia. So far, however, the Office of Dairy Extension has advised against establishing such a plant.

The following figures are interesting in showing the growth of the creamery industry of the State. The amounts of butter given below were made by the various creameries during each the last three years.

1920	butter	manufactured	989,713 lbs.
1921	"	"	1,345,628 lbs.
1922	"	"	1,530,994 lbs.

The progress which the creameries are making is on the whole very satisfactory.

X. OFFICIAL TESTING

During the past year there has been an average of about 140 cows on official test throughout the State. This work is being conducted with 25 different breeders.

Messrs. Wall and Seitz have done the majority of the testing work. During the past year men have been sent to Georgia and South Carolina to make retests. Twenty-two hundred News Letters are issued to the dairymen of the State each month, giving a report on this work.

During the year 301 tests have been made. The total amount of money collected for this testing amounts to $2,308.54, the average cost per test being $7.67.

XI. PUBLICITY

During the past year the following articles have been written and published in county and daily papers. Contributions have also been made to the *News Letter* and the *Progressive Farmer*. The list is as follows:

Spring Conditions Affecting the Cream Producer.
Why Cows Should Freshen in the Fall.
The Milk Cow a Safe Investment for the Cotton Farmer.
Feeding the Dairy Cow for Profitable Production.
Profits in the Dairy Business Begin at the Feed Trough.
Dairymen can Prevent Summer Losses by Keeping Milk Clean, Cold, Covered.
A Cream Route the Practical Solution.
Dairy Cattle Breeders Make Progress in Testing for Milk and Butterfat.
Cows, Home Grown Feeds and Pastures must precede Creameries.
Feeding Grain to Milk Cows on Pasture.
Produce High Grade Cream—It Pays. (Ext. Cir. 13).

During the past year the head of the office has traveled 9,609 miles by rail and 2,755 miles by automobile, attending 63 meetings and addressing 8,645 people. Two thousand nine hundred and two letters have been written, 11 newspaper articles and 20,000 circular letters including the North Carolina *Extension News Letter*.

A summary of all activities of the Dairy Extension men is given below:

Number doing official testing	25
Number doing herd record work	10
Number assisted in building barns	11
Number assisted in remodeling barns	10
Number assisted in silo building	23
Number assisted in milk house construction	11
Number Swiss cheese made	10
Amount of creamery butter made (lbs.)	1,530,994
Cheese Makers Short Course	1
Cheese Makers Association organized	1
Cheese Scoring Contest held	3
New cheese factories built	2
Meetings held	195
Attendance	22,629
Cows placed	168
Bulls placed	16
Milk campaigns held	2
Exhibits at fairs and conventions	10
Creameries assisted	16
Miles traveled by rail	29,345
Miles traveled by auto	39,025
Letters written	4,813
Circular letters mailed out	20,000
New Creameries built	1
Creameries remodeled	1

The work of the Dairy Extension Office has progressed during the past year in a very satisfactory manner and the prospects for future work of a helpful nature are bright.

BEEF CATTLE EXTENSION

R. S. CURTIS, *In Charge*

The Animal Industry Division has been without a Beef Cattle Extension man for about three years. There is a wide field for work along this line and some way should be worked out whereby this phase of the work can receive the attention due it. For the past two or three years the writer has given it as much attention as conditions in the office would permit. Much of the work done has necessarily been done through correspondence.

The following projects, however, have been conducted and insofar as time permitted tangible work has been done under the following named projects.

I. BEEF CATTLE SALES

During the year assistance has been given at several sales of beef cattle held throughout the State. The first of these was the coöperative

sale of beef cattle held at Spruce Pine in October. During the time this sale was being arranged we did not have the services of a live stock marketing man which made it very difficult to conduct the sale as efficiently as otherwise.

Under the circumstances, however, about 600 cattle were sold at good average prices. This work has been so satisfactory the above being the third sale held, that plans are under way to conduct it annually. Mr. V. W. Lewis returned to his marketing work in this State just a few days before the sale and was able to render active assistance. Mr. R. W. Goodman, now district agent, and the county agents in Yancey, Mitchell and Avery counties in coöperation with Mr. W. R. Radford, helped also in conducting this sale.

The office also assisted in a sale of pure bred Hereford cattle held at Asheville on November 9th and a sale of pure bred Aberdeen Angus cattle held at Gastonia during the Gaston County Fair. In addition to these sales help has been rendered in placing bulls and females where requests have been received for so doing.

II. BEEF CATTLE FEEDING DEMONSTRATIONS

Beef cattle feeding demonstrations have been conducted on the following farms. These were for the purpose of teaching farmers better methods of finishing animals and having them ready to be placed on the market at the most opportune time. As in dairy cattle, swine, and in fact, all other phases of Animal Industry work, the feeding problem is the outstanding one to be dealt with in the field.

The demonstrations were held on the following farms:

Halifax Farms, Incorporate, Scotland Neck, N. C.
Gwyn Farm, Canton, N. C.
Mountain Test Farm, Swannanoa, N. C.

III. CALF CLUBS

While it has been very difficult to conduct beef calf clubs, some tangible progress has been made. This year some good work has been done in Buncombe County through the coöperation of the county agent there. This work has developed and proved of such interest that it will be enlarged very materially next year. This will be made possible through the splendid coöperation of the Farmers' Federation operating in Buncombe and surrounding counties.

Something over three hundred dollars has already been secured through one of the Asheville banks to conduct this work on a comparatively large scale next year.

IV. EXHIBITS

Realizing that feeding is one of the pressing needs in all lines of live-stock work, a feeding exhibit was made at the following places and has attracted such wide attention that it has been requested to be sent to several other places. It was installed as follows:

State Fair, Raleigh, N. C.
State Live Stock Meeting, Hickory, N. C.

It is to be installed further in Guilford County from where it will be sent to Davie County, in each place having been requested by the county agents.

The exhibit was also installed at the Southeastern Fair at Wilmington, N. C. The editor of the *Southern Ruralist* has requested a sectional photograph of each part of the exhibit to be run in various issues of the above paper.

V. Meetings Attended

The following meetings have been attended through the year:

State Live Stock Meeting, Hickory, N. C.
Southern Agricultural Workers, Memphis, Tenn.
Coastal Plains Field Day, Willard, N. C.
Piedmont Farm Field Day, Statesville, N. C.

Talks on live stock were made at each of the above meetings.

VI. Office Duties

The regular routine in connection with Beef Cattle Extension Work has been conducted by the writer as well as having charge of the Animal Industry Division and the work pertaining thereto. These matters have been fundamentally of an organizational nature and have consumed a very large portion of the time.

Contributions have been furnished the daily papers of the State, the *Progressive Farmer,* the *Breeder's Gazette,* and other periodicals of this nature.

In addition to these duties the multiplicity of small matters have received attention.

SWINE EXTENSION WORK

W. W. Shay, *In Charge*
Assistant: J. M. Watts

I. Feeding Demonstrations

Owing to the fact that hogs are not profitable as they are customarily handled in the State, the field work of the Office of Swine Extension during the last two years, has been devoted mainly to an effort in improving the methods of feeding and marketing. The idea in doing this was to help the farmers make their hogs profitable rather than to try to increase the present number, many of which are produced at a loss under the system followed.

The change from present methods to those advocated is so great that progress can be made only through demonstrations. As an example of the way in which this work is growing it may be stated that between September 1st, 1922, and April 1st, 1923, 62 demonstrations were conducted by 20 county agents, using a total of 646 hogs. By this method of feeding as advocated by the Office of Swine Extension an average of $1.54 was received for each bushel of corn.

SELF FEEDER FOR HOGS TO BE USED IN FEEDING DEMONSTRATIONS IN GASTON COUNTY

It has been definitely determined by this office that greater progress follows this method of doing Swine Extension work than any other yet tried. Wherever this work has been done it has been followed by decided increase in interest in pork production as well as in the methods pursued in marketing hogs. The work has frequently developed nuclei for coöperative shipments.

The results of a demonstration of this nature are largely measured by the care with which it is conducted, its influence being commensurate with accuracy.

II. OTHER PROJECTS.

The Office of Swine Extension has adopted feeding demonstrations as its major project, a majority of the time of both workers having been spent in this line of activity. The Office has, of course, been interested in and pursued other projects which are as follows:

(a) The improvement of breeding stock through the introduction of pure bred animals individually and by consignment sales.

(b) The improvement of equipment through demonstrations of the use of home made self feeders, automatic oilers, breeding crates and self waterers.

(c) The introduction of a Register of Merit for pure bred swine, seven having been started.

(d) Adoption of a ton litter contest. Some progress has been made along all of the lines mentioned except the last which is just in its inception. The project, however, bids fair to become an interesting and instructive one.

III. Methods Used.

Adoption of improved methods of conducting the work of Swine Extension has brought good results. Through the use of forms it has been possible for one part time stenographer to issue feeding schedules and reports of results with a fair degree of promptness on as many as fifty demonstrations running at the same time.

An efficient "follow up" system has served to keep alive a good percentage of demonstrations started. The further adoption of forms for this purpose has greatly simplified reports of agents on the progress of demonstrations.

During the year charts have been made of twenty-four phases of the feeding, breeding, and marketing of hogs, and of the corn and hog ratio. Photographic reproductions of some of these charts have been made and used in circulars and other publicity matters.

In order that finished hogs may be sold at the crest of the market the following information is being spread broadcast to farmers.

(a) Sows should be bred during the last 15 days of April and October.

(b) Pigs born during January and February should be marketed August 15th to September 15th.

(c) Pigs born during July and August should be marketed between March 15th and April 15th.

On the following page is given a summary of the Swine Extension activities.

CONDENSED SUMMARY OF ACTIVITIES
OF THE
OFFICE OF SWINE EXTENSION, STATE COLLEGE STATION, RALEIGH, N. C.
During 14 months ending with the fiscal year, December 1, 1923.

October 1922-November 1923 MONTH	TRAVEL			Demonstrations Started	No. of Hogs Weighed	VISITS TO	
	Rail	Auto	Total			Agents	Others
October	606	90	696	7	81	1	3
November	2,187	553	2,740	12	202	14	21
December	1,180	188	1,368	3	32	6	16
January	1,720	830	2,550	41	624	11	48
February	1,577	704	2,281	13	321	12	61
March	1,160	516	1,676	2	20	7	37
April	1,190	322	1,512	5	47	4	25
May	707	451	1,158	10	89	5	16
June	430	308	738	5	52	10	31
July	2,859	409	3,268	10	130	8	17
August	2,086	387	2,473	2	12	10	17
September	1,175	425	1,600	2	12	10	14
October	746	109	855			5	4
November	1,118	279	1,397	4	71	7	15
Total	18,741	5,571	24,312	116	1,693	110	325
Shay	8,422	1,442	9,864	4	55	32	73
Watts	10,319	4,129	14,448	60	1,825	78	252

October 1922-November 1923 MONTH	MEETINGS		Letters Written	PUBLICITY		
	No.	Attendance		Circular Letters	Charts	Articles
October	3	515	98		1	1
November	5	712	180	1	3	2
December	1	16	130	1		
January	6	315	273	2	2	3
February	6	276	232	3		3
March	4	940	233	1	1	3
April			182	1	2	2
May	1	100	114	2	1	5
June			127		1	6
July	6	500	128		3	2
August	3	500	94	2		2
September	1	9	147	2	3	3
October	6	167	87		4	4
November			52		3	
Total	43	4,050	2,077	15	24	36
Shay	25	3,484	1,524	13	24	36
Watts	18	566	553	2		

NOTE—Total office consultations, 60.
Publications: *Feeding the Club Pig.*

SHEEP EXTENSION

G. P. WILLIAMS, *In Charge*

During the last year Mr. George Evans, in charge of Sheep Field Work, resigned to take up county agent work in Davie County. Mr. Evans was succeeded by Mr. G. P. Williams who now has charge of the work in the State.

The work of this Office consists largely in the placing of pure bred rams and ewes, grade ewes, solving pasture problems, inaugurating better feeding methods, parasite control, giving demonstrations on proper methods of shearing sheep and tying wool, and in the preparation of wool for market. Much good work has been done, although it is recognized that the development of the sheep industry is a side line for the farmer and it can not develop on any one farm into a large enterprise.

Prior to the resignation of Mr. George Evans some unusually effective work was done through the use of a Sheep Extension Truck which carried representative specimens of the breeds recommended for the State as well as all of the necessary equipment and instructions for handling sheep properly on the farm. Due to the fact that the work in the State was new to Mr. Evans' successor, this truck has not been operated this year, but plans will be worked out whereby it can be used in the work this coming year.

The following summary of work covers the activities of Mr. Evans before his resignation on March 1st.

Pure-bred rams placed	3
Pure-bred ewes placed	5
Personal visits to farms	18
County agents visited	8
Judging contests held	4
Educational exhibits at fairs	4
Demonstration flocks started	1
Farmers' meetings attended	1
Number of people attending meetings	120
Miles traveled by auto	170
Miles traveled by rail	912
Letters written	478

In addition to this, 540 miles were covered by the Sheep Exhibit truck. This was stationed largely at fairs and otherwise at the Live Stock Meeting and group meetings of this nature. This work was very effective.

One of the outstanding pieces of work done by Mr. Evans in addition to the above was the marketing of approximately 40,000 pounds of wool through wool pools at prices anywhere from 5 to 10 cents above those being paid through the country by country buyers. This work was done in coöperation with the Division of Markets.

The sheep work as pursued by Mr. G. P. Williams, has been very much along the same lines as that adopted by Mr. Evans. An unusually large amount of publicity work has been done in this State and copied by papers and periodicals in other southern states.

The summary of work as conducted by Mr. Williams up to date is as follows:

Visits to county agents	26
Demonstrations held	21
Visits to others than county agents	27
Meetings held	9
Attendance at meetings held	261
Office consultations	81
County wool pools graded	9
Pounds of wool graded	19,000
Miles traveled by rail	3,645
Miles traveled by auto	603

All of the district county agents' meetings were attended by Mr. Williams, these being held shortly after he came into the State. It has given him an excellent opportunity to become acquainted with the agents and learn the problems existing in their respective counties. Considering that he has been in the State for only six months a large number of activities have been carried on.

There is a wide field for sheep development conducted under proper limitations such as has been the policy of this Division since the inauguration of the work. On this basis the future of the work is no doubt very bright. The state wide stock law in eastern North Carolina has been instrumental in reducing the number of sheep in that section but doubtless this will prove to be a good thing inasmuch as better sheep will develop in the place of many of the scrub sheep formerly kept.

POULTRY EXTENSION

ALLEN G. OLIVER, *In Charge*
Assistant: E. G. WARDIN

The poultry work is so clearly outlined on a project basis that I am enumerating the projects under which is given a brief description of the work conducted. This will be followed by a complete summary of all of the work accomplished during the year, thus setting forth in a clear, concise way the results obtained.

The projects are as follows:

I. STANDARDIZATION OF FARM FLOCKS

This work consists of organizing communities for the purpose of standardizing poultry in order that the poultry and eggs may be graded in standard grades to bring the highest market prices. The aim is to keep one breed in each community.

II. Coöperative Buying and Selling

The purpose of this is to market coöperatively in order that the highest price may be obtained, and second, to order supplies in large quantities to save the poultry keeper money. Methods of assembling, grading, packing and shipping eggs are given consideration as well as market factors on live and dressed poultry.

III. Feeding Project

This campaign is for the purpose of teaching how to use proper feed mixtures, methods of feeding for heavy egg production, chicks, range birds, and fattening for market. Instructions are also given on how, what and when to grow for poultry.

IV. Building Project

Information is given on the proper methods of constructing farm poultry houses, commercial laying houses, brooder and range houses, sitting and brooding coops and poultry house equipment.

V. Breeding Project

This consists of a culling campaign, methods of selection and mating breeding birds and judging classes in competition.

VI. Disease Control

This project is in coöperation with the office and laboratory of Poultry Investigations and Pathology. Instruction is given on the control of lice, mites and contagious diseases. Consideration is also given to sanitation and location of poultry houses.

VII. Fairs

This work consists of exhibits of poultry houses and poultry equipment and other poultry educational features. These are divided insofar as possible at state, district, county and community fairs.

VIII. Publicity

Aid is given in solving general poultry problems on methods of conducting demonstrations. Lectures and articles are also given to county and home agents, local leaders or secretaries of community clubs.

This work also encourages the writing and presentation at club meetings of the results obtained by members. In publicity work as well as all other phases of the industry the production and general poultry program is divided into seasonal sections representing spring, summer, fall and winter.

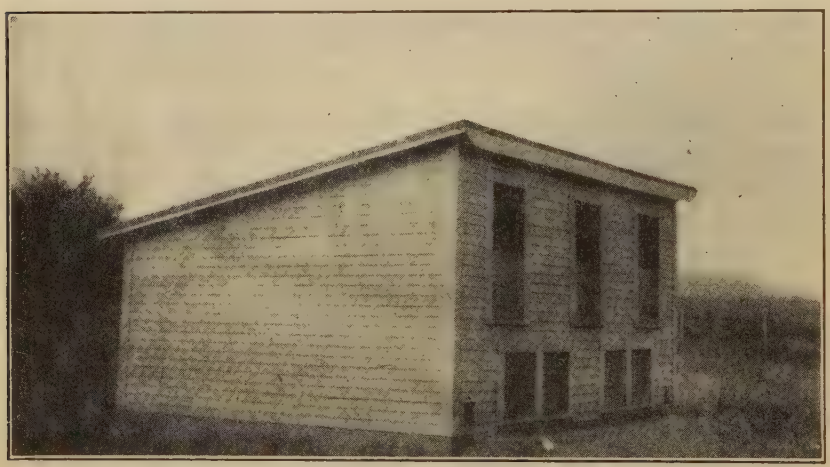
OUTSTANDING WORK PERFORMED

The intense culling campaigns held have been the direct cause of increased egg production with less fowls and therefore a saving of feed cost. Early hatching and the retaining of all vigorous pullets with much emphasis on proper feeding has been the means of marked in-

crease in egg production when eggs were high in price. This increased production of graded eggs has been the cause of lowering the prices on cold storage eggs. This has resulted in the better grades of fresh eggs averaging around 60 cents a dozen whereas they formerly sold for 35 to 45 cents per dozen.

The club work has increased greatly. However, this office has laid special stress on production from a utility standpoint. The club exhibits at fairs this season have been the largest and best in the history of the world. These exhibits furnished the high percentage of winners in the open or professional classes at Hickory, Greensboro, Raleigh, Fayetteville, Tarboro, Wilmington and Pinehurst. The club winnings at the Madison Square Garden Poultry Show were a signal victory for farm raised birds.

This office has acted as a clearing house for all birds for sale that were suitable for breeding purposes. It has also been instrumental in increasing the production of early fryers due to the placing of many incubators and brooders and giving information on the construction of brooder houses.



BROODER HOUSE FOR CHICKS FOR WHICH PLANS WERE FURNISHED

The office has further assisted in giving information on the caponizing of late hatched cockerels, battery or coop feeding of birds before placing on the market, and standardizing according to grades. Assistance has also been given on standardization of products offered for sale through curb markets.

The production of turkeys has been stimulated to a considerable extent. The office has otherwise furnished a list of reliable feed dealers where poultrymen could purchase necessary feeds at reduced prices. It has also furnished a list of reliable hotels and dealers where products could be sold to best advantage.

It may be said that this report does not show the sum total of all work done as this would necessarily have to be taken from the reports of the county and home agents. Although this work referred to above is not included herein the activities of the office have materially increased since last year.

The following is a summary of all work performed:

Miles traveled by rail	13,379
Miles traveled by auto	9,940
Number of letters written	1,084
Number of farms visited	574
Number of demonstrations held	1,043
Number of meetings held	418
Number in attendance	26,511
Number of community fairs	7
Other shows and fairs	13
Number of members showing	281
Number of birds shown	2,179
Amount of cash won	$ 1 342
Poultry houses built new	45
Poultry homes remodeled	52
Conferences held	48
Office consultations	56
Local articles for press	43
Flocks culled	398
Number of dozen eggs shown	46
Number of birds culled	3,711
Judging contests held	9
Educational exhibits staged	25
Lectures given	462
Counties visited	35
Circulars and Bulletins mailed	2,360

Due to the large number of people interested in poultry work the above report is certainly a very flattering one. However, this work has been very popular since its inception and due to the depredations of the boll weevil the field has been greatly enlarged for not only increased production but along with it a better quality of birds and poultry products in general.

CONCLUSION

The live stock extension phases of work have increased markedly during the past year, this being due in part to the supplanting of cotton, especially with some form of live stock work. Much of the increase is due, however, to the vision that these workers have of these problems and their ability to place them in the right light before farmers and stockmen. I am quite sure that this statement may be made without exception and that if the work continues to increase during next year as it has in the past the chief problem will be how to reach those in need in an effective way.

In closing this report the writer wishes to take this opportunity of commending each worker and the zeal with which the respective lines of work have been pursued.

I will be glad to have you call on me for any additional information which you may need in compiling your general report of all Extension activities.

Respectfully submitted,

R. S. CURTIS,

Animal Industry Diision.

REPORT OF THE DIVISION OF ENTOMOLOGY

To the Director:

Extension work in Entomology is based upon the findings of investigation workers, and is carried on in coöperation with the county agents, interested farmers, and other agencies.

Many practices in insect control are fairly well standardized and are accepted by entomologists generally as a basis for their advice, without a duplication of the work which established their utility. With other posts our investigation workers are adapting recommended measures to the conditions existing in our own state, securing result-data upon which our advice may be based,—or working upon possible improvements combinations, or modifications which may be beneficial under our conditions. With still others new facts and data may be sought.

The findings which are of economic importance to the farmers are then disseminated by the extension workers through county agents, meetings, demonstrations, etc.

We have two workers who are specifically engaged in this Extension work: Mr. W. B. Mabee in General Entomology, and Mr. C. L. Sams in Beekeeping. Their operations are separately reported. I have also included brief discussion of reports of insect damage which here come to us in correspondence, as this activity is also of an extension nature.

EXTENSION IN GENERAL ENTOMOLOGY

Mr. W. B. Mabee is our regular worker in this field, although the investigational workers and others of the force also do much work which properly ranks as Extension effort. During the year under review Mr. Mabee's time has been largely devoted to boll-weevil work.

During the months of January to March inclusive, county-wide boll-weevil meetings were held in 28 cotton counties as follows: Rutherford, Cleveland, Catawba, Lincoln, Gaston, Mecklenburg, Iredell, Rowan, Cabarrus, Union, Stanly, Montgomery, Moore, Hoke, Scotland, Lee, Harnett, Cumberland, Johnston, Sampson, Wayne, Greene, Edgecombe, Pitt, Lenoir, Craven, Carteret and Beaufort. In addition many more local meetings were held in these and other counties. Mr. Mabee personally attended 24 demonstrations and 35 meetings on the subject of boll weevil control. The writer (Mr. Sherman) attended a number of the above meetings. Members of the Division of Agronomy have also taken part in these meetings, discussing cultural practices in relation to weevil damage. The Divisions of Animal Industry and Horticulture were also represented at a number of meetings to discuss their special subjects.

On April 3rd Mr. Mabee located at Dunn, in Harnett County, to help and advise interested farmers in weevil matters. A temporary helper was assigned to assist him through the mid-summer season. This work reached many surrounding counties in coöperation with county agents and farmers. Over 3,000 circular letters were sent out.

In several cases where growers prepared for poison-dusting operations, the natural weather-control (heat and dryness until mid-July) of the weevil was sufficient so that the dust-applications were not necessary. The determination of these facts in the fields, with the advice based on the findings, prevented much waste of labor and materials. There were other cases where weevil-injury did reach such a point that dust-poison applications were advised and given. As definite yield-data was secured in the work of 1922 (Ext. Cir. 137) showing that the dust-poison is profitable in this state under heavy infestation, it now seems desirable to extend the work widely among those interested.

Mr. Mabee also took part in installing and explaining the insect exhibit of the Division at the State Fair, has attended several meetings of county agents, and other conferences.

A summary of Mr. Mabee's work may be given as follows:

Visits to county agents	132
Demonstrations	24
Meetings	35
Attendance at meetings	3,327
Letters, circular and other	3,924
Consultations	518
Travel by auto (miles)	5,904
Travel by train (miles)	3,871

Temporary Work.—During the summer we were enabled to employ two temporary workers by authority from the Director for this purpose. Mr. O. Z. Morgan of South Carolina was placed at Shelby, in Cleveland county, where he worked on boll weevil control in coöperation with County Agent Lawrence and farmers. It was soon found (as had been expected) that in Cleveland County the heaviest weevil damage was to the southward, and there some dust-poisoning was done. The other worker was placed at Dunn, with Mr. Mabee.

Other Agencies.—A number of other agencies have shown a commendable desire to disseminate sound information on boll weevil control. In 1922 the Virginia-Carolina Chemical Company, through its Agricultural Service Bureau, Dr. A. E. Grantham, Director, conducted a number of demonstrations in this state. Similar work was carried on in 1923. The Royster Guano Company of Norfolk employed Mr. J. O. Taylor during 1923. Mr. Taylor was for several years with the U. S. Department of Agriculture boll weevil laboratory at Tallulah, La., and has been engaged in promoting the measures which have been proven sound. He has coöperated and has attended many meetings.

It is a pleasure to know that it is intended to continue his work. The Chamber of Commerce at Dunn provided facilities for Mr. Mabee's work in that section and has since expressed appreciation of it. Several other Chambers of Commerce have offered facilities or asked for publications to distribute. The Land Department of the Seaboard Air Line Railway undertook demonstrations of the new "Florida Method," submitting to us in advance the proposed dates for treatments in the different localities.

EXTENSION WORKERS HELD A NUMBER OF SUCCESSFUL DEMONSTRATIONS IN DUSTING COTTON TO CONTROL THE BOLL WEEVIL.

We feel that the general boll weevil situation in the state is favorable at the present time. We have passed through the third season of severe injury, the area enlarging each year. In 1921 the severe injury area was small and while the loss was heavy, the farmers were sufficiently warned and prepared so that the distress was not as severe as might have been expected. In 1922 the severe-injury area was larger, and the weevil was moderately severe, yet the season was favorable to the cotton, and the price was high enough to be encouraging. In 1923 the severe-injury area was larger still, but the heat and dryness of early summer held down the early weevil infestation,—on the average a good crop has been made, and the price is satisfactory. Providence has been kind. Meanwhile, we are exerting every effort to place before the farmers the soundly proven methods for avoiding the ravages of

the weevil, or of lessening its damage. A considerable number of intelligent farmers have become established in the use of these practices —others will learn; while there always remains a great number yet to be reached.

Correspondence.—While a great part of the general correspondence of the Division pertains to routine, technical and administrative matters,—yet that part which pertains to insect outbreaks and complaints is of an Extension nature. The correspondence on these subjects runs throughout the year but is usually heaviest from May to September inclusive. There were well over 500 such complaints, reports and sendings of specimens during the year. Not less than 11 distinct insects were mistakenly sent as boll weevil for a total of over 50 such errors. The genuine sendings or complaints of boll weevil in our mails were 86, beside numerous personal consultations on the same subject in office and field. Other leading insects with the number of correspondence inquiries were: Cowpea pod weevil 39, Red Spider 31, Mexican Bean beetle (small part of state) 17, Cotton Leaf worm 14 (many reports in the press in addition), Black Grain Weevil 13 (other grain weevils in addition), Lady beetles 13 (usually feeding on cotton leaf louse), Woolly Maple aphis 10, Cotton Leaf louse 9. Many other insects were reported, the entire list including 139 distinct species. To accurately identify these and to give the information asked requires considerable time and study. A large share of this correspondence is with county agents, and it is gratifying to note that the variety of insects sent for identification and information seems to increase as the years pass, indicating a keener interest and "desire to know" on the part of the public.

Publications.—In discussing the investigation work mention is made of the publications under each project. The following publications, intended especially for distribution to farmers and county agents, have been issued during the year November 1, 1922 to November 1, 1923:

N. C. Agr. Extension Circular 135, "Dusting Cabbage and Collards for Worms."

N. C. Agr. Extension Circular 137, "Dust-poison Method for Boll Weevil."

Bull. N. C. State Dept. Agr. March 1923, "Curculio on Peaches in North Carolina."

Each of these has been distributed to county agents and to numerous farmers and growers,—the total distribution amounting to many thousands of copies. There have also been issued form and circular letters regarding boll weevil, curculio, Mexican bean beetle, and black grain weevil. Many press items have also been submitted through the Editorial office.

EXTENSION IN BEE-KEEPING

Mr. C. L. Sams is the worker in this field, the project being in cooperation with the Apicultural Office of the U. S. Bureau of Entomology.

There has been a decided increase in interest in modern bee-keeping and a decided average improvement of practices among commercial honey producers, as a result of this work. The work is done in coöperation with county agents and individual bee-keepers, neighbors gathering to witness such demonstrations as transferring, requeening, manipulations for swarm control, use of modern hives and equipments, preparations for honey flow, and preparations for wintering.

Bee-keepers who formerly used box-hives have changed to frame hives and have begun to make a specialty of beekeeping. Others who were already using frame hives have learned to greatly increase their honey production by better methods of manipulation, in some instances doubling their honey crop.

A bee-keeper in Burke County indicates that as a result of demonstrations in his apiaries both his profits and his pleasure in bee-keeping have been greatly increased; colonies to which the improved methods were applied averaging over 100 pounds of honey, while others in the same apiary not so handled, averaged only about 30 pounds. Others have reported similar results.

A bee-keeper in Brunswick County who began to specialize in bee-keeping only a few years ago, and who has often relied upon Mr. Sams for advice, built up his operations to the point where be began the season of 1923 with 450 colonies,—he has now at the close of the season increased to 650 colonies and produced over 20 tons of honey during the year, and is securing a satisfactory price for it.

The above are but two out of a number that might be mentioned, and demonstrate the good results which are possible to those who have the foundation knowledge of how to handle bees, and who are in good locations, or are favored with a good season.

Owing to the presence of foul brood in a number of counties, there have been several demonstrations of manipulations and methods to control this disease.

During the year extension work in bee-keeping has been done in 43 counties.

A summary of Mr. Sams' work may be given as follows:

Visits to county agents	131
Demonstrations and meetings	233
Attendance	2,407
Visits to bee-keepers	354
Total number assisted	2,761
Travel, by auto (miles)	8,717
Travel, by rail (miles)	4,984

In closing this report on the Extension work of the Division we may appropriately remark upon the constantly enlarging field for operations. While the boll weevil is the most insistent problem at present, other problems are ever present also,—and the Mexican bean beetle is a newcomer. The Agricultural high schools offer a channel for spreading information. County agents have also asked for talks at public schools in their counties. Add to these the constantly increasing interest among farmers in all that pertains to production and protection of their crops, and we see that there is always plenty of work ahead.

Very respectfully submitted,

FRANKLIN SHERMAN,
Chief in Entomology.

REPORT OF DIVISION OF HORTICULTURE

To the Director:

North Carolina is growing very rapidly as a horticultural state with a great number of industries developing with the different horticultural crops. This has brought about the greatest interest in both commercial and home horticulture that has ever existed in the state. Existing agricultural conditions in the state which include the general economical need for diversification, boll weevil conditions and a realization of the advantages of the State for different horticultural crops has been largely responsible for this interest.

This increased interest has resulted in the largest demand ever made on this Division for extension work. There are more opportunities for service in this phase of the horticultural field than ever before.

The success of the extension work in a state depends upon determining the real problems of horticulture, the soundness of principle on which the work is conducted, and the degree of efficiency developed in presenting the demonstration and the extent to which the practice demonstrated is actually adopted in the community.

An earnest effort has been made to determine the most important problems of horticulture in the State so that the exension work could be organized on a logical basis and so that the maximum amount of service could be performed. A logical and well balanced program of extension work is based upon problems of both commercial horticultural crops and those of home importance. A close study of the horticultural development and possibilities of the State has been made to determine the commercial and home problems.

The most important commercial horticultural industries in the State are those of the sweet potato industry in the Coastal Plain and Piedmont Sections, the early Irish potato industry in the Coastal Plain, the apple industry in the Mountain section, the late Irish potato industry in this same section and the peach industry in the Sand Hills. From a home standpoint, home gardens, home orchards and home beautification are certainly the most important phases.

The commercial interests of the State have been studied from the viewpoint of the problems of existing industries and from the standpoint of the developing of new industries for which the certain sections of the State have special natural and economic advantages. Similar study has been made with the home aspects of horticultural extension.

Some of the more important problems with reference to the horticultural development as outlined above are:

(1) More thorough pruning and spraying in commercial orchards.

(2) More home orchards and more careful attention to home orchards on North Carolina farms.

(3) Home gardens for both rural and urban families.

(4) A better distribution of the sweet potato crop through the use of storage houses.

(5) Improved cultural practices in both sweet and Irish potato production.

(6) The need of closer association among growers and the development of organization in handling their business rather than the development of the individual system.

(7) More attention to beautification of the home grounds.

ORGANIZATION OF WORK

In the organization of demonstration work, it has been found that the definite project plan and program basis is the most satisfactory system. A descriptive list of horticultural extension projects is sent to each county agent so that he can select those projects best meeting the needs of his county to include in his plan of work for the coming year. At the county agent conferences of the different districts the scope of the different projects is explained in detail as is the manner of conducting them. The agents submit their program for horticultural work to the specialists and a coöperative program between the agents and specialists is worked out and any readjustments necessary are made so that a definite year's work is planned with certain objective points and methods of attack fully outlined.

The general tendency in the past has been to take care of miscellaneous requests for demonstrations that have been made by county agents and others. While some good has come from this scattering type of work, effectiveness has been weakened by lack of concentration and organization. Although it will always be necessary to meet some requests for general demonstrations we are anxious to concentrate and confine our efforts to definite organized work and are trying to discourage this isolated type of meeting or demonstration. The work is planned to reach groups rather than individuals. This plan has brought about closer working arrangements between the county agents and extension workers. The Division relies on the county agents to work up county and community groups for the different projects. The work of the Division is conducted largely through county agents, home demonstration agents, boards of trade, fairs, fruit shows and different local agencies. Extensive use is made of the daily press, circular letters and circulars in aiding campaigns and in the dissemination of information.

A definite and logical program for horticultural extension, combining definite objects to be accomplished with definite plans of work, has been developed on the project basis so that the problems of the State could be met. The program is divided into commercial and home phases and is composed of the following projects:

COMMERCIAL

Fruit Projects

(1) GENERAL DEMONSTRATION WORK IN PRUNING AND SPRAYING

General demonstrations in pruning and spraying in coöperation with the county agent, conducted in young orchards, mature orchards and old orchards. Agents to select orchards, provide pump and material, advertise date and secure crowd.

(2) ORCHARD MANAGEMENT DEMONSTRATION

Commercial orchards and farm orchards are used in this work. Orchards are selected or located in good apple producing counties, with typical orchard section, near good roads, more or less contiguous to other orchards with problems of the section, a portion of the orchard to be given recommended program orchard management such as pruning, fertilizing, cultivating and spraying with a portion of the orchard left untreated as a check. On the coöperative basis with county agents and owner three year basis of operation. Accurate records to be kept on cost and effectiveness of treatment.

(3) CONSULTATION WORK IN ORCHARDING

Consultations with county agents and commercial orchard owners on special and individual problems.

(4) SWEET POTATO PROJECT:
Production, Harvesting, Storage, Organization

ORGANIZATION

In coöperation with county agents and progressive organizations, meeting to stimulate interest, information on varieties, production methods, harvesting, curing and storage, showing model house, follow up.

Demonstrations in harvesting, grading, handling, and operation of storage house. Plans of house construction, rules for operation, points of caution and care, news articles, bulletins. Consultations on construction of large houses, with assistance in operation. Confined to counties suitable to commercial production.

Organization of local association to build and operate storage houses, work on federating these locals into central organizations.

(5) IRISH POTATO PROJECT

Organization of associations, inspection service, comparative value of Western North Carolina seed and Maine seed.

In coöperation with county agents and coöperative seed potato growers organizations. Certification service of three field inspections and one bin inspection with rules of seed production supplemented by demonstrations.

Demonstrations in the early potato section in Eastern Carolina showing comparative value of Western North Carolina seed and Maine seed.

(6) CABBAGE PROJECT

In coöperation with county agents and coöperative cabbage growers organizations.

This work consists in the organization of local association of cabbage growers and in the organization, construction, and management of kraut factories.

(7) CONSULTATION WORK IN TRUCK GROWING

Consultations with county agents and commercial truck growers on special problems.

HOME

Fruit Projects

(8) GENERAL DEMONSTRATION WORK IN PRUNING AND SPRAYING

General demonstrations in pruning and spraying in coöperation with the county agent, conducted in young orchards, mature orchards and old orchards. Agent to select orchards, provide pump and material, advertise date and secure crowd.

(9) DEMONSTRATION HOME ORCHARDS

In coöperation with county agent featuring this project. Visits made, demonstrations in pruning, spraying and management given.

Truck Projects

(10) HOME GARDEN

Organization of rural and city garden clubs, under direction of county agent and home demonstration agent. Plans and records on request. Bulletins, circulars, press stories and general information. Demonstration gardens.

Miscellaneous Projects

(1) HOME BEAUTIFICATION

The object of this project is the beautification of homes and communities in North Carolina in order to make living conditions more attractive. In order to accomplish this, several types of demonstrations are offered—all bearing definite relation to home and community grounds improvement. The work is given in coöperation with the home and county agents. The county home demonstration or farm agent, or both in coöperation with the home garden specialist working together in making a definite program for the community. The demon-

strations in this project are given under the headings of transplanting demonstrations, variety demonstrations, arrangement demonstrations, lawn demonstrations, engineering demonstrations, maintenance demonstrations.

STATISTICAL

The statistical report of the work for the year shows 223 visits to agents, 645 demonstrations, 910 visits to others, 274 meetings conducted with a total attendance of 19,930, travel by rail 21,440 miles, by auto 10,095 miles and there were 220 office consultations.

PROJECTS

Apples.—The limiting factors in apple production in North Carolina are orchard management and pruning and spraying. Definite projects and definite demonstrations with orchard management and with pruning and spraying have been conducted in coöperation with the county agents.

In the orchard management demonstrations splendid results have been secured. The results secured in coöperation with W. W. Walker, Hendersonville are illustrative of the effectiveness of this work. In this demonstration part of the orchard was treated by giving light dormant pruning, nitrate of soda, cultivation and six sprays—one dormant and five summer applications. The untreated portion of the orchard received no pruning, fertilization, cultivation nor spraying. A tree from each portion of the orchard was selected and actual yields measured. The trees were of the Winesap variety 20 years old and set a heavy bloom. The two trees were 25 feet apart. The treated tree gave 18 bushels of marketable apples and 3 bushels of culls, while the untreated tree gave a total yield of ¼ bushel of culls.

As an example of the spraying demonstrations in the same orchard six Winesaps were sprayed with the result that they yielded 126 bushels of apples. The checked tree of one Winesap yielded only ¼ bushel.

The statistical summary of the work on apple projects show 32 visits to agents, 71 demonstrations, 171 visits to others, 58 meetings, with attendance of 1,741 at meetings and demonstrations, 3,524 miles traveled by rail and 3,332 miles traveled by auto.

Peach.—The division coöperated with the Hamlet Chamber of Commerce in conducting the third annual Sand Hills peach show. An interesting program was conducted with about 3,000 in attendance.

General Fruit.—General demonstrations with pruning and spraying the home orchard were also made throughout the State. The statistical summary of this work shows 9 visits to agents, 9 demonstrations, 8 meetings, with an attendance of 360; 484 miles traveled by rail and 184 miles traveled by auto.

Sweet Potatoes.—The program in sweet potato work is one of the outstanding features of the program of the Division. This work con-

sists in holding demonstrations, attending meetings and in supplying information in regard to the production, harvesting, storing and handling of sweet potatoes. Much assistance is given in the construction of sweet potato storage houses and in the organization and management of local associations of sweet potato growers.

The organization of local associations of sweet potato growers to construct storage houses and to market their potatoes has been conducted in coöperation with the Division of Markets. The locals were successfully federated into a central selling agency. Counties that have become infested with the boll weevil have been advised to grow slowly into the commercial sweet potato business while every community has been urged to build storage houses to supply its local demand as a strictly conservation measure. A statistical summary of this work shows 7 visits to agents, 23 visits to others, 9 demonstrations, 14 meetings, attendance 177; 969 miles traveled by rail, 154 by auto.

Irish Potatoes.—The work of the project consisted of 3 important phases: first the development of seed growers coöperative associations in the western part of the State, second the development of the inspection service for seed potatoes in the State and third the demonstration of comparative value of Western North Carolina seed with that of the Maine grown seed for Eastern Carolina. In organizing the seed potato growers associations the membership of nearly 300 growers was secured on a contract basis. Definite methods of production were worked out in coöperation with the associations so that a very high type of potato production was secured.

Inspection service was developed whereby three field inspections and one bin inspection were given to fields entered for certified seed. This work was done in five counties in Western North Carolina with nearly 200 fields. As a result of the inspection work a quantity of very high quality seed stock has been produced.

Eighteen demonstrations in Eastern Carolina showing the comparative value of the Western North Carolina seed and the Maine seed were conducted. From the 18 demonstrations an average yield of 174 bushels of number ones and 48 bushels number twos and culls from the mountain seed outyielding the northern seed an average of 24 bushels per and culls from the Maine seed were secured. This shows that the mountain seed outyielded the Northern seed an average of 24 bushels per acre.

In the conduct of the potato work the statistical summary shows 46 visits to agents, 223 visits to others, 50 demonstrations, 16 meetings—total attendance 379; 2,305 miles traveled by rail and 2,829 by auto.

Cabbage.—The work on this project consisted in the organizing of a cabbage growers association, the construction of a kraut factory and giving demonstrations and supplying information in regard to cabbage growing and the operation of a kraut factory. Very successful results are being secured with the sale of cabbage through the association in

the manufacture of kraut and in the sale of kraut. There are 90 cabbage growers in the association. Three hundred and fifty tons of cabbage have been delivered to the association with about 120 tons of it sold in the fresh state and 230 have been put into kraut. Cabbage has been sold above the market price because of the superior grade of the cabbage of the association which is possible for the fact that lower grades can be put into kraut. The statistical summary of the work on this project shows 45 visits to agents, 404 visits to others, 13 meetings, attendance 192; 1,616 miles traveled by rail and 838 traveled by auto.

Home Garden.—Of far-reaching importance was the work of the home garden project in which efforts were successfully made to increase the number and quality of home and farm gardens and to emphasize the value of the "all year" garden. The circular the *Farm and Home Garden Manual* was reprinted to supply the demand for this publication. Both the county and home agents have been developing the work in other counties. The work has been conducted with the economic, thrift, social, educational and public health phases emphasized. Much assistance has been given to home agents in their project of growing vegetables for their curb markets. A statistical summary shows 163 demonstrations, 49 meetings with a total attendance of 2,486.

Home Beautification.—The following types of demonstrations were given in coöperation with the home demonstration and county agents during the last year.

1. *Transplanting Demonstrations.*—To teach the home owners how to transplant trees, shrubs and vines, especially native varieties from the woods to their yards so as to save the whole shape or frame work of the tree or shrub.

2. *Variety Demonstrations.*—To acquaint the prospective planters with flowers, shrub and tree varieties and their use in the landscape with emphasis on the native varieties, and improved exotic sorts.

3. *Arrangement Demonstrations.*—To show how plant materials can be arranged to really enhance the appearance of the grounds and to give serviceable comfort as well.

4. *Lawn Demonstrations.*—To show the fundamental principles of lawn building and maintenance by soil preparation and fertilization and the proper seeds and seeding.

5. *Engineering Demonstrations.*—To show the proper method of drainage, yard division, arrangement of buildings and the construction and maintenance of drives and walks.

6. *Maintenance Demonstrations.*—To demonstrate how to properly prune, fertilize, spray and otherwise maintain the plantings. The following method was employed:

The county home demonstration or farm agent, or both, had previously arranged to hold a county Home and School Improvement Campaign. The Home Garden Specialist was then called into conference

and a definite plan or program for the landscape part of this campaign was determined. In some counties community meetings were held in which the proposition was presented in detail. Then a day or so was spent in this community giving demonstrations on home, yard and community grounds planning. (The latter usually a school ground). Definite plans were made to scale on a sheet of white paper size 17x22. Carbons were made of this plan in triplicate. One copy to go to the demonstrator, one to the county agent and one to place in the files at the Horticultural office in Raleigh. Each plan shows in detail complete planting and arrangement plans. Also lists showing varieties suitable for each district, checking those plants to be used in the plan. Such plans were prepared for the actual demonstrations while merely rough pencil sketches were made and given to the owners often times where only a few suggestions were wanted.

BEAUTIFYING THE SCHOOL GROUNDS

Planting bees were held on 16 school grounds last fall to demonstrate the use of native shrubbery and trees in beautifying home and school grounds.

This work offered a variety of types of landscape improvement. Plans were prepared for 80 schools, 79 homes, 28 churches, 1 community park, 2 cemeteries, 7 court house grounds and one town community center. Rough sketches were made of 71 home grounds, 5 cotton mill grounds, 3 mill villages and one whole town was replanned. The plan is to follow up these demonstrations for 2 full years in order that as far as possible the plantings and arrangements may actually become accomplished facts.

Planting Bees or Arbor Days are to be arranged at each school or community demonstration at which time each pupil and patron of the school is to plant some permanent tree, shrub or flower. It is the plan

this year to hold one such day in each of the counties where such demonstrations have been started, others to follow as time will permit.

A special course for home agents was given during the summer at the annual conference of home agents. Seven demonstrations were prepared and presented to them in their annual state conference at Blue Ridge in early July. Each of these lessons was amply illustrated by graphic illustrations. The object of these lessons was to show in at least a general way the types of plants that are most suitable for home landscape; to acquaint the demonstration agents with the general plan of Home and Community landscape improvement; to familiarize the agents with the native plant materials; to show that each home is a specific problem and how best to handle it. These lessons were well received by the agents who were very attentive and many have since shown that much good was derived.

STATE FAIR

Three important phases of the extension work in horticulture were illustrated at the state fair. The work of the home beautification project was outlined in a very effective demonstration. This consisted of two small houses constructed to be identical. The one set upon stone pillars situated in a barren yard cut up with ruts showing no order or arrangement, few or no trees and shrubs and no lawn. The other represented the same house after it had been tastefully painted and shrubs, trees, vines and flowers were planted in an orderly, logical way about the foundation and borders of the green, well-kept lawn. The drives and walks were well arranged and well kept. This presented a decided contrast to the former.

An exhibit demonstrating the results of the 18 demonstrations on the comparative value of Western North Carolina and Northern seed was very effectivly made. This graphically showed the results of this work as reported in another section of this report.

The work in orchard management was very emphatically brought out in an exhibit of the actual fruit from a tree in the treated plot and from a tree in the untreated plot in the Walker demonstration at Hendersonville mentioned under the heading of apple work in another section of the report.

GENERAL TRUCK WORK. This project includes work with commercial truck crops. A statistical summary shows 12 visits to agents, 9 meetings, 470 attendance, 235 miles traveled by rail, 121 by auto.

COÖPERATIVE PACKING HOUSES. This Division working in coöperation with the workers from the Virginia Extension Service formed the Virginia-Carolina Fruit Growers Association at Mount Airy, N. C. Seven orchards comprising 40,000 bearing apple trees were signed up. A central grading and packing plant has been equipped and this year's crop is being sold coöperatively in the Virginia-Carolina Fruit Growers.

As a result of the central packing house a very high quality pack is being packed.

PUBLICATIONS. Under publications of the Division should be mentioned "North Carolina A Land of Horticultural Opportunity," which has had national distribution, and which has developed much interest in North Carolina horticulture.

A second edition of the "Farm and Home Garden Manual" was published this year to meet the demand of this publication.

Results of the investigation of Thermal Belts conducted over a period of years has been recently published, as supplement 19 of the "Monthly Weather Review" under the heading of "Thermal Belts and Fruit Growing in North Carolina, and Thermal Belts From the Horticultural Viewpoint." Extension circular entitled "Growing Apples in North Carolina" was published.

During the year H. R. Niswonger was appointed to the position of Extension Horticulturist to conduct horticultural demonstrational work in the western part of the State. H. Neal Blair was appointed to the position of Cabbage Specialist to develop the cabbage and kraut industry in the western part of the state.

The Division as well as the State experienced a severe loss in the death of Mr. L. H. Nelson who did part time extension work. Mr. Nelson was one of the most valuable workers in the Division.

Respectfully submitted,

C. D. MATTHEWS,
Chief, Division of Horticulture.

REPORT OF THE DIVISION OF MARKETS AND RURAL ORGANIZATION

To the Director:

This report is for the year ending December 1, 1923, and covers the extension work of the Division of Markets and Rural Organization of the State College and Department of Agriculture in coöperation with the United States Department of Agriculture under the agreement and plans entered into by these institutions for the conduct of all agricultural work of this kind in the State.

COTTON CLASSING

P. H. Hart, Specialist in Cotton Classing reports that during the past fiscal year ending December 1, 1923 his section had classed approximately 138,000 bales of cotton.

Since the organization of the North Carolina Coöperative Cotton Growers Association most of the cotton has been classed at the Raleigh office where eight classers and five helpers are needed to keep up with the work during the rush season. Only two branch offices were opened this season at Fayetteville and New Bern. The office at Fayetteville was closed November 15th account the resignation of the classer but the one at New Bern is still open.

The Fayetteville office reported 3500 bales classed; the New Bern office approximately 2500 bales. Of the total 138,000 bales practically 120,000 bales were classed for members of the Cotton Association.

LIVESTOCK MARKETING

The work in livestock marketing was almost at a standstill until the return of Mr. V. W. Lewis early in October. Since then there has been greatly increased activity and interest in this most important project.

As has been the case in the past a great amount of time is given to farmers who are interested in locating or disposing of pure bred animals suitable for use as foundation stock in breeding herds.

Hogs. The interest in coöperative marketing of hogs is still increasing. In fact we know of no farmers who have not been highly satisfied with the plan of preparing hogs for the high spring and summer markets. With the good corn crop we have this year and with corn reported as worth only 60c on local markets we are recommending feeding it to the pigs in order to push them for the March or early April market, rather than to carry them over for fattening next fall. Those pigs which cannot be fattened in time for the March market can be kept growing now and finished later for the next high point in the market which usually comes in August. With all the natural advant-

ages we have it seems folly for our farmers to attempt to compete with hogs from the Middle West on the late fall and early winter markets.

LAMBS. For the past twenty years on the Chicago market lambs have brought most money per pound along in April. The corn-belt farmers, because of climatic conditions, cannot have their lambs ready in April. Eastern North Carolina farmers can, and yet with all the advantages of climate that we have, very few lambs are dropped by January 1st, and by far the majority of them are born during March and April.

With the grazing we could have from rye and oats and cover crops, how much better it would be to have the lambs come in November. Then we could have them ready for the high prices which usually feature the April market. Advantages which should be considered are the most economic use of labor at this season, the control of stomach worms, and the higher prices—three very important factors.

Why should we attempt to follow the exact time and manner of livestock production as followed in the Middle West? Why not capitalize our own advantageous climatic conditions and surroundings to bring in greater returns from the same class of production by getting our products on the market when the producers of the Middle West cannot compete with us? We are stressing this point especially for Eastern North Carolina.

WOOL. Those counties which assembled their wool, carefully graded it, and held it for the better markets have been nicely rewarded. In recent sales Watauga County reports receiving for her wool a price of 50c per pound on best grade of wool free from burs, while Pasquotank County sold at 45c for the best grade. This office is always glad to assist with the grading or in locating buyers.

CATTLE. The coöperative cattle sale at Spruce Pine on October 10th was a pronounced success. The farmers seemed well satisfied with the returns from the 650 cattle sold at auction. This is the third sale held at Spruce Pine in this manner. We believe, however, that enough educational work has been given these people so that hereafter they will be able to conduct their own sales. In order that the deal may be even more satisfactory and business-like the growers are now contemplating the use of a short-term contract binding them to market through the association and to produce their cattle in accordance with its regulations. This will insure a more uniform quality of cattle.

In connection with this we are also recommending the replacement of the scrub bulls with the best type of beef animals, and plans for the gradual grading up of the cattle of this section have been submitted to the members of this association.

POULTRY AND EGGS. The coöperative marketing of eggs is one of the most recent projects. The first association, the Cleveland County

Coöperative Egg Association began business on January 1st with 5500 hens contracted for one year. They are shipping 10 to 15 cases of eggs weekly. If this works out well the contract will be made on a five-year basis after this season and assistance will be offered to other important egg producing counties.

There has been a great increase in the production of early broilers in several counties. These young broilers weighing about one and one-half pounds are ready by the middle of January and command fancy prices in the proper trade channels. If sold in the smaller places they will hardly bring their worth. Usually the finer hotels offer a good market.

Prices on turkeys on the northern markets were best very early in the season and growers were encouraged to sell early. Some did, but many did not, and they were unable to find shipping to the northern markets at holiday prices a paying proposition. For these people it was necessary to find local markets, as these remained fairly steady throughout the season. One of the greatest drawbacks to our turkey business is neglect toward the fattening. Half-fattened birds are offered to the public at Thanksgiving and this demoralizes our Christmas trade. More attention should be given to fattening if we are to build up a nice trade in turkeys. Market prices received daily over our leased wire were mailed regularly to interested parties during the turkey marketing season.

FRUITS AND VEGETABLES

The past season has been an unusually active one in the fruit and vegetable section. There has been particularly great increase in the interest in local inspection. In fact in some cases it was not possible to secure really competent men to do work for which the communities were willing to pay so that they have had to wait for another season hoping that the situation may be improved. Mr. G. Shumaker, of this project, reports that the man who markets poor quality produce or packs deceptively is being outlawed in a way by the great throng of enthusiastic growers who are determined to make the name "North Carolina" stand for something whenever it appears on a package.

REGULATORY AND POINT-OF-ORIGIN INSPECTION

Local inspection work of a regulatory nature has been continued as far as possible, but the great amount and variety of shipments makes our small force entirely inadequate. Continued improvement, however, is noted everywhere but especially in the strawberry and potato sections.

In coöperation with the Federal Department of Agriculture we served our Sand Hill peach growers with State-Federal point-of-origin inspection for the first time this season. Practically every car shipped from

this territory carried a State-Federal certificate, and the growers were much pleased with the benefits of this service, for they were provided with better refrigerator cars than heretofore and not a single car was turned down by the purchasers when it arrived in the market.

This work with peaches practically paid for itself through the inspection fees collected. With a full crop it can be carried on with even a smaller fee than was charged this season.

Point-of-origin inspection will be stressed during the coming year as one of our major projects, as demands have already been received for this service in connection with strawberries, potatoes, apples and truck.

FEDERAL LEASED WIRE NEWS SERVICE

During the year the Division of Markets was fortunate enough to secure the installation in its offices of the leased wire telegraph service of the U. S. Department of Agriculture. The Raleigh office is on the Southern circuit which also has drops from Washington, D. C., to Richmond, Atlanta and Jacksonville.

All traffic is scheduled and controlled by the Washington office and is transmitted simultaneously to all the big market centers. During the night the Washington office receives hundreds of telegrams from railroads reporting the carload movement of perishable commodities over their respective divisions. These telegrams give the origin, destination, commodity, and number of carloads in transit. The information is classified and tabulated and moved to all offices early the next morning to show graphically the total volume of perishables, fruit and vegetable products moving to the various cities.

Following this information the estimated receipts at livestock markets are dispatched, followed by general reports on livestock, meat, and other products showing supply, demand, wholesale prices and conditions. Flashes on cattle, sheep and hogs are dispatched. Butter and egg quotations, and local quotations and information from the big markets on fruits and vegetables follow. During the day considerable general information on cold storage products, peanuts, honey, hay, grain, feed, butter, eggs, cheese, fruits, and vegetables moves over the circuits.

At the close of the day market summaries on all commodities are dispatched for release to newspapers and to radio, telephone or telegraph broadcasting stations. The information received over the wires at the various branch offices is available to producers and the trade by telephone, telegraph, radio, and the press so that almost at any moment farmers and the trade everywhere may have an accurate picture of the national agricultural market situation. Consuming centers are also advised as to the supplies of various products. This enables producers to regulate shipments so as to prevent the glutting or undersupplying of

markets which according to department officials is the outstanding value of the service as the result is stabilization of prices to both producers and consumers.

Market News Service field stations were continued again this year, at Chadbourn for strawberries and at Elizabeth City for potatoes.

CURB MARKETS

Curb markets of the bazaar type have been featured particularly, and some twenty of these are now in active operation. Splendid reports received from them weekly form the basis for the Weekly Curb Market Report which is a rèsumè of prices and conditions at the various marketing centers within the state.

ECONOMIC SURVEY OF CUMBERLAND COUNTY

During November plans were completed whereby representatives of the Federal Bureau of Economics assisted by State Officials would conduct an economic survey of Cumberland County. The object of this work is to inventory the production of agricultural commodities in Cumberland County and to obtain economic information which can be used in production and marketing extension work both locally and in other counties.

From the data secured it will be possible to recommend such steps as will tend to correlate local production and consumption with a view to capitalizing the natural advantages of the community.

Other counties have already made application for similar surveys.

AGRICULTURAL STATISTICS

The past year has resulted in better information than any previous year according to Mr. Frank Parker, Agricultural Statistician. No particularly new work was begun. One feature was temporarily discontinued, that being the threshers' reports.

Crop Reports

Due to the heavy and increased number of regular and special crop and livestock reports demanded, it was necessary to give more attention to maintaining the voluntary lists and to developing and interpreting the results. There were 54,823 total schedules for reports sent out during the year, 14,000 reports received. The total pieces of mail received were 22,214, and the total reports issued were 66,397 copies. The regular and special schedules carried a total of 888 items for the year.

Those were developed into county, district and state acreages. Most of the crop and livestock estimates are developed by weighed averages. Editing is essential, and requires a knowledge of current county factors

for each subject. The press has called for and used all that we could get time to furnish in the way of newspaper stories. It was impossible to develop more than a small part of the information available into popularly interpreted information, as the Crop Reporting Service does not have a field statistical and economics specialist other than the federal representative in charge.

FARM CENSUS

For the first time every county in the state made a creditable farm census survey report for 1923 crops. The enumerations were otherwise quite creditable. Sixty-eight counties made reports for every township, while only fourteen counties had more than one township survey lacking. Sixty per cent of the farm land area of the State was enumerated in the Farm Census Work, after editing out all unsatisfactory reports. There was less faulty work than previously. Far less objections and more favorable expression and evidences were noted. The County Commissioners generally approved of and paid for the listing of the crop acreages.

The increased demand for and widespread commendation of the published results of the 1922 results were self-evident of the need for and value of this basic farm economics information. It was also evident that it is needful for safe buying and selling programs. With the increasing degree of accuracy and practical nature of the results, there is reason to expect valuable interpretations of forecasts, trends of production and prices. When this is done, North Carolina will be another step ahead of other Southern States.

GENERAL

The North Carolina work now covers almost all phases of farm statistics. The lists of voluntary reports include the following: General (all crops, monthly) 1,700; Cotton (monthly) 1,400; Farm Census (Tax Supervisors) 1,200; Price 450; Tobacco 500; Thresher-men 1,800 and Peanuts, Fruit, Truck, Legumes, Pecan, Potatoes, Livestock, County Officials, storage houses and other which include less than 500 each. The greatest confidential information list is the farm census which gives about 170,000 farm owners by townships, counties and detailed crops.

The need in this office is the practical development of economic information by a statistical specialist who would have no other duties to interrupt. The North Carolina farmers need to know the facts of what was done last year, as well as how they ought to do in 1924.

The only new plans contemplated are for a statistical economics laboratory in coöperation with the State College. If made effective, this will help to relieve the present greatest need for interpreted information.

CREDIT UNIONS

The credit unions of North Carolina have been more or less an experiment in the past and have had only part time supervision. The success attained warrants their consideration as permanent institutions in this state. Mr. A. V. Anderson, Specialist in Rural Credits, will devote his full time to supervising credit unions and organizing new unions where there is a need for credit facilities.

There are at present twenty-six credit unions incorporated in this state. They are located in eleven counties in the various parts of the state, and are revealing the needs of the different types of farmers.

The credit unions have been handicapped in the past by not having a simple but adequate system of accounting. Such a system has been devised, and is now ready to be installed in all the unions. Monthly inspection of books will be made until the secretary-treasurers can handle them and then inspection will be less often.

The credit unions in this state have performed a wonderful work in the communities in which they have been located. They have provided a means of saving and a system of legitimate credit resources. Savings collected are loaned to members for productive purposes. The money that has been out of circulation comes out from its hiding and commences to draw interest and to work for the benefit of the community. From this the members are learning the value of capital. They are becoming thrifty, and they are beginning to adopt business methods in their farming operations which they are forced to use in the credit union. With this education in business and an object lesson in thrift, they get a new vision of life and realize it is possible for them to work out of their difficulties.

Five communities are now ready for the organization of credit unions.

Respectfully submitted,

B. F. Brown,
Chief, Division of Markets.

REPORT OF THE DIVISION OF PLANT PATHOLOGY

To the Director:

I submit the following report to cover the work in plant pathology conducted during the period from September 1, 1922, when duties were assumed by the writer, to the close of the fiscal year ending June 30, 1923.

COTTON WILT CONTROL

In order to reduce the loss resulting from cotton wilt, demonstrations were arranged in the eastern portion of the State to show the most efficient method for controlling this disease. This work was undertaken in coöperation with the county agents. Despite publicity given to the disease and methods of control in previous years, many farmers whose fields are infested are found unfamiliar with the disease or with the preventive measures necessary for its control. Demonstrations were held in Edgecombe, Lenoir and Richmond counties, which illustrated the control of the wilt trouble through the use of Dixie-Triumph wilt resistant cotton. The yield from wilt resistant cotton on one acre demonstration plots averaged approximately twice that of susceptible cotton on adjoining plots. These demonstrations have convinced the growers of the advisability of planting this cotton on infested areas. More extensive areas will be planted to this variety of cotton in these sections next year. Dixie-Triumph wilt resistant cotton has proven to be a very suitable strain when handled by a careful breeder, for growing under wilt conditions. With few exceptions, farmers who have tried this variety have found it very satisfactory, and are increasing their plantings from year to year.

TOMATO WILT CONTROL

As a means of reducing the loss resulting from Fusarium wilt of tomatoes, seed multiplication plots of wilt-resistant tomatoes were maintained on the Coastal Plain Branch Station Farm during the season of 1923. Two varieties were used—the Norton and the Marvel wilt resistant. The seed were originally obtained from members of the Bureau of Plant Industry of the U. S. Department of Agriculture. The project was made possible through the coöperation of the Experiment Station force at Willard.

From these seed plots, a sufficient quantity of seed has been obtained for planting approximately 450 garden plots next year. The present supply of seed will be available in small lots for growers whose gardens are known to be infested with Fusarium wilt. This Department will coöperate with county agents in placing seed with interested parties.

IRISH POTATO DISEASE CONTROL

The control of disease of the Irish potato has largely been confined to the work of producing disease free seed potatoes in the mountainous portion of the State. This undertaking is conducted in coöperation with the division of horticulture. In 1918, there were approximately fifty growers in Watauga County and half this number in Avery County who applied for seed certification. The total yield from these fields approximates ten thousand bushels. The inspection work necessary to determine whether or not these potatoes are suitable for certification with regard to freedom from disease necessitates at least two careful inspections of each field. Several weeks' work is necessary for carrying out the inspection.

Through the efforts of the county agents and the growers themselves, much success is being met with in the higher altitudes of the State in producing good yields of seed potatoes, which are relatively free from disease.

Studying a Wheat Disease

Farmers, specialists and county agents studying the dreaded "Take All" of wheat on a Piedmont farm.

ORCHARD DISEASE CONTROL

The orchard work of the past year has consisted mainly of field demonstrations and meetings held in coöperation with county agents and other extension workers, in various parts of the State. Since the disease problem is a limiting factor in commercial fruit production, work of this sort was undertaken wherever practical. The importance

of the disease problem is especially emphasized in the western portion of the State, where apple scab is very destructive. Fruit on unsprayed trees is often infected to the extent of one hundred per cent.

PLANT DISEASE SURVEY

The disease survey work was conducted in coöperation with the Plant Disease Survey Office of the U. S. Department of Agriculture. This undertaking involves the taking of data on the prevalence and injury produced by the various diseases of economic crops. Reports also cover the control measures as practiced in the various parts of the State and the success attained with each. The county agents coöperate in making estimates and submitting specimens.

MISCELLANEOUS

Other undertakings which occupied a portion of the time during the year are included in the following. Fifteen newspaper articles were prepared during the season for publication in county newspapers and various agriculture papers. At the request of county agents, 2,600 mimeograph sheets dealing with seed treatment of potatoes and the preparation of Bordeaux mixture were supplied for giving instructions to the individual grower. Five hundred and fifty bulletins dealing with plant diseases and their control were distributed to interested persons. Thirty-five plant specimens were sent in to the writer for identification and information was sent out concerning these. In demonstration work, 120 bushels of sweet potatoes were treated before bedding for slips.

An exhibit dealing with plant diseases and their control was prepared for the State Fair in the fall of 1922. Demonstrations and meetings were held in various parts of the State in coöperation with county agents and other extension workers. These meetings were fifteen in number with an attendance of fourteen hundred.

An extension circular entitled, "Bordeaux Spray for Truck Crops" was prepared and distributed in order to put this information in a simple and available form for use by the truck grower.

As the various agricultural enterprises in the State become more localized and intensive, increased trouble results from disease accumulation, which necessitates additional precautions in these sections. These organizations, however, afford effective means for uniting efforts in disease control, and it is through these channels that a considerable portion of the extension work of this division has been done during the past year.

Respectfully submitted,

G. W. FANT,
Extension Plant Pathologist.

REPORT OF THE FARM FORESTRY DIVISION

To the Director:

WORK OF DIVISION, 1919-1920

The first report on Farm Forestry was tendered by Harry B. Krausz in 1919. The second in 1920 by the same forester, who resigned in 1921. No farm forestry work was undertaken by the Extension Service between the time of the resignation of Mr. Krausz and the engagement of H. M. Curran, December, 1922.

Principal work accomplished by the Division of Forestry in 1919 and 1920 was the examination of farm forests; mapping the areas and the estimation of the marketable timber. Assistance to owners in the sale of this timber was also given and to small saw mill operators in the manufacture and sale of their product. Mr. Krausz advised in the manufacture of 1,700,000 board feet of saw mill product and assisted in the sales of 625,000 board feet of hardwood and pine lumber.

General educational work was also carried on by lectures, press articles and bulletins. Examinations of timber land were made in the following counties: Alamance, Cumberland, Durham, Franklin, Halifax, Harnett, Moore, Orange, Randolph, Vance and Wake. In eleven counties in two years.

WORK OF 1923

Owing to limited funds now available and the necessarily reduced personnel, work for the year 1923 has been conducted along general lines, in contrast to the detailed work of my predecessor. So far as was possible, the same assistance was given to farm forest owners who desired to coöperate with the division.

The work undertaken was to secure the coöperation of District and County Agents in a state-wide attempt to grow more and better timber on North Carolina farms. These farms now produce annually on ten million acres, some thirty-two million dollars worth of forest products; fourteen million dollars worth of it used on farms and eighteen million dollars worth, cut for sale. These farm forests constitute one of the State's most important industrial assets. These lands now produce approximately three dollars worth of forest products per acre per year without any real care. They are capable of producing ten dollars worth of timber per acre per year and probably double this at the end of the next thirty-five year period, in which time a new crop (from seedling to harvest) can be grown.

The importance of these areas can be best realized when we know that the entire holdings of forest lands by the states is less than this area and that the returns from all the forest lands held by

the United States is under two million dollars per year. As late as 1915, North Carolina was one of the four large lumber producing states in the Country. Washington, Louisiana and Mississippi were the only states exceeding our cut, which was well over two billion feet.

There is an average of production for our forest land which under present conditions is possible. If we maintain production at this level, our forests on the farms will produce annually five billion feet of logs and lumber. This is twice the cut of the State in 1914, the year of maximum lumber production. This amount of timber can be produced annually and our forest area remain intact and productive.

No group of owners of forest land is more favorably situated for the growing of timber than the farmers of North Carolina. Their forest lands should net them ten dollars per acre per year under good management. To secure this better crop, the following line of work has been carried on by the Division of Forestry:

A NEW PHASE OF DEMONSTRATION WORK

Farm forestry is now receiving more attention in North Carolina. Here is a demonstration plot in a Piedmont county.

Personal visits were made to District and County Agents at their stations or in the general or group gatherings of these extension workers. A personal interest in growing forest crops was aroused among many of these men. Following the first visit, arrangements were made for a reconnoissance of the county with the county agent to determine the relative amount of timber in the county, its growing condition, species

to grow for crop, fire and insect damage, local markets and prices. The methods to pursue in seeding and cultivating areas to secure continual cropping were also determined.

Based on this reconnoissance, typical areas were selected for demonstration. Thinnings were made on these areas and other cultural instruction given that will enable the owners to secure maximum growth.

Practically all cutting must be made in the winter months and as the preliminary survey was begun in winter, little cutting could be done before the close of the season. The winter of 1923-1924 will be largely devoted to this work.

Publicity work of this division has been carried on through lectures, personal visits and the press. F. H. Jeter, agricultural editor, has aided very materially in broadcasting forestry publicity with his efficient service.

Other lines of work undertaken included assistance in all branches allied to forestry, such as ornamental planting of forest trees and shrubs, highway and town planting, pecan and walnut planting, marketing of minor forests products such as walnuts, tree seeds, etc.

Three general forestry meetings were attended during the year. Two at Asheville and one at Southern Pines. An illustrated lecture of forestry was given to students of the North Carolina State College of Agriculture and Engineering and a lecture on farm forestry to the graduate students of Dr. C. C. Taylor.

A series of lectures by noted foresters of national reputation has been arranged for and will be given at the North Carolina State College of Agriculture and Engineering during the winter and spring of 1924.

Six students of the senior class of the State College have asked for forest instruction and plans are being drawn to provide for the course in the coming year.

SUMMARY

The following is a summary of the activities of the year:

Visited	78 counties
Made reconnoissance in	23 counties
Made demonstrations in	4 counties
Traveled	4,717 miles
Wrote	747 letters
Other office work	72 consultations

Respectfully submitted,

H. M. Curran,
Forester.

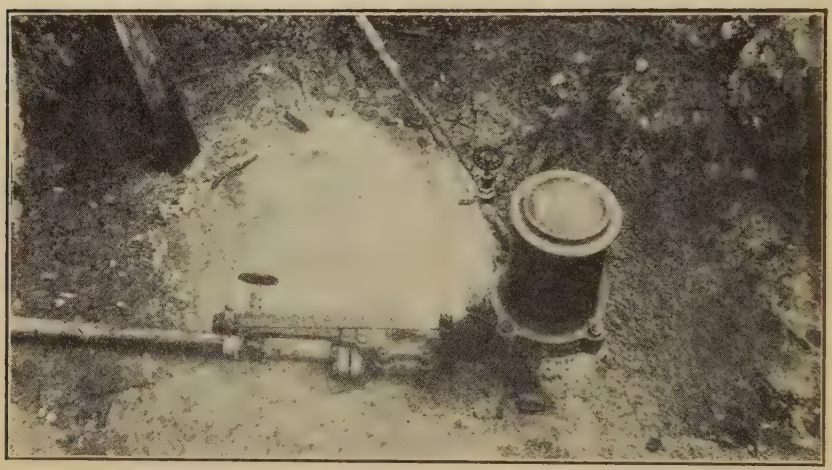
REPORT ON FARM ENGINEERING

To the Director:

A definite program was started the first of the year, covering three main projects, and this has been followed as far as possible throughout the year, these projects being:

1. Water supply, sewerage disposal, lights and other home conveniences.
2. Farm buildings and concrete construction.
3. Farm machinery and motors.

Along with these, water-power development has been pushed and a number of new plants started.



HYDRAULIC RAM PUMPING WATER FOR HOUSE AND STOCK IN STANLY COUNTY.

In carrying on the work visits have been made to various sections of the state where a number of people were interested in one or more of these projects. The locations were gone over and best plans suggested. Along with this, bills of materials and estimates of cost given, and standard plans furnished or special plans gotten up. From actual practice it has seemed that the best results have been obtained where practical working demonstrations are put on. In putting these on a second trip is made after all materials are ready, or after plans and bills of materials have been mailed, in the case of buildings. At these demonstrations all the interested parties are invited and are usually present to help and ask questions. We also refer others to these locations who write in later

STARTING THE NEW COAT OF PAINT DURING PAINT CAMPAIGN IN MECKLENBURG COUNTY

DEMONSTRATING THE USE OF PAINT

The value of paint on the farm and in the home was demonstrated to several thousand people in Mecklenburg County during a two weeks Home Beautification Campaign last year.

from the same section. Our best building and water supply work has grown from demonstrations of this kind.

Ninety-nine of these practical demonstrations have been put on, including 10 dairy barns, 5 mule barns, 16 self feeders, 5 breeding crates for hogs, 6 poultry houses, 5 brooder houses, 4 hydraulic rams, 2 water supply outfits operated by engine, 3 water towers, 4 septic tanks, 17 silos, 8 demonstrations in the use of explosives, and 11 other small buildings of various kinds.

In Columbus County the county commissioners have built a big barn at the County Home from one of our plans as a model to be copied.

Thirteen hundred and sixty-four sets of plans have been mailed out during the year with bill of materials for each one. These plans have included everything from residences down, in the way of buildings on the farm, and have gone to seventy-nine counties over the state. Eighteen additional designs from which prints are made have been gotten up during the year.

A REAL DEMONSTRATION IN PUTTING UP A STAVE SILO WHERE THERE WAS NOTHING BUT THE STAVES. FIVE OTHERS WERE BUILT FOLLOWING THIS ONE NEAR HENDERSONVILLE, N. C.

Visits have been made to 41 county agents where work along these various lines was taken up.

Fourteen water power locations were looked over, but up until this time only about 4 of these have been put in. Twenty-nine meetings were held with a total attendance of 1,273 where various forms of work were discussed. Each of the practical demonstrations usually resolves itself into a meeting for discussion of plans and arrangements of buildings.

One of the outstanding pieces of work accomplished was the Paint Campaign put on in Mecklenburg County in coöperation with the County and Home Agents, together with the local paint dealers and their

manufacturers. Two hundred gallons of paint donated by eight manufacturers and $60.00 in cash donated by their dealers was given as prizes. In addition to this the companies furnished the services of the best paint men in their organizations for the demonstrations held in each of the fifteen townships of the county. Two hundred and ten people signed up to paint the outside of their homes, 178 to paint the inside of their homes, 52 to paint barns and all outbuildings, and 44 to paint all farm machinery. At these demonstrations the paint men took up floors, walls, furniture and outside work and gave the different methods of treatment.

Bills of materials and other information were mailed out for 49 silos and assistance given in the construction of 17 of these.

Four hundred consultations were held in the interest of the work: attended 2 District and one State meeting of County Agents. Also attended annual meeting of American Society of Agricultural Engineers.

Nine hundred and thirty-eight letters written, 2,741 miles traveled by automobile and 7,513 by railroad in carrying on the work.

A survey was made of the soybean harvesters being used with an idea of suggesting improvements in these. It was found that present machines get about 75% of beans, and will take care of about 5 acres per day or 40 acres per season.

A blue-print machine was installed and reduced the cost of prints about 10 cents per sheet.

Respectfully submitted,

E. R. Raney,
Extension Farm Engineer.

REPORT OF THE DIVISION OF PUBLICATIONS

To the Director:

In rendering a report of the work of this Division for the past year there is a feeling that it can show a number of definite accomplishments. The main effort of the Division has been to reach the reading public of North Carolina with facts about better farming in the State, to give definite information about how to do these things and further to show that the agricultural workers of the State College and Department of Agriculture are endeavoring to meet the needs for facts and leadership in a development of the State's agriculture.

In a large measure, we have worked with the weekly press. That is, we have given more attention to the needs of this section of the press than before. Not only have we given them articles which they could use to advantage but we have also tried to render them a service by showing the importance of the small home town paper in each community.

The facts in this report cover the year ending December 1, 1923 and the publications referred to were issued during the fiscal year beginning July 1, 1922 and ending June 30, 1923.

REACHING THE READING PUBLIC

As stated, this Division has made an earnest attempt to work with the weekly papers in stimulating interest in better farming and home making. Each week, every Thursday to be exact, the weekly and farm press are sent about four one-page articles and a page of fillers. During November 1923 a check was made of such papers as were available and we found that of the 60 papers examined, 51 were using the material supplied them. This is 85 per cent of the papers coming under our observation and we have reason to believe that other papers not coming to our office are also using the material. At least we get this report from the various county agents.

During the same month, we sent out approximately 108 inches of news and informational matter, an average of 27 inches each week and our check showed that the weekly papers used 3,109 inches or an average for each paper of 61 inches per month and 15 for each week. This shows that 55 per cent of the material was used each week. This study was based on the entire distribution of the material and not on any individual story. Some papers used more of the material than others but we find that all the stories are used by some of the papers each week. According to a newspaper directory published in 1921, the combined circulation of the weeklies which used this material in November amounts to 71,566 subscribers. This, of course, does not take into consideration the large number of weekly papers which do not exchange with us and the dailies to which we supply an entirely different service.

Beginning early in 1922, the Associated Press began a daily mail service to the daily press of North Carolina. At the invitation of the officials in charge of this service we have given them about an average of four stories each week. These have appeared in all of the large papers of the State.

Other special news services consist in a monthly article to the Progressive Farmer giving timely messages from the leaders in charge of agricultural work in North Carolina; a special news article each month to the Southern Planter giving late agricultural information; a special feature article about some phase of agricultural work to the six leading daily papers for their Monday issue and other articles from time to time to the various farm papers of the country.

SERVICE WORK TO EXPERIMENT STATION AND EXTENSION SERVICE

From December 1, 1922 until December 1, 1923, the period covered by this report, the Division of Publications has mailed a total of 1,790,775 pieces of mail, bulletins, cards, or posters.

The statistical statement of mimeograph and multigraph work is as follows:

MIMEOGRAPH AND MULTIGRAPH WORK

Division	*Circular Matter Prepared*	*Circular Matter Mailed*
Farm Demonstration	257,470	226,782
Home Demonstration	119,367	91,202
Animal Industry	157,081	78,258
Director's Office	27,362	22,338
Horticulture	13,920	1,515
Entomology	12,815	1,970
Agronomy	6,128	1,572
Markets	11,300	456
Veterinary	3,862	
Food and Oils	3,670	
Commissioner's Office	3,862	98
Farm Engineering	1,290	
Publications, news matter	74,364	74,364
Total	687,890	498,555

This table shows that the Division has prepared 687,890 letters, forms or cards for the various divisions and of these has mailed from the office, 498,555 copies.

In addition to this, the division has mailed or sent by express supplies consisting of envelopes, letterhead paper, plain paper and bulletins in bulk to the amount of 761,694 pieces; mailed 137,907 copies of *Extension Farm News;* 61,466 pieces of miscellaneous matter such as report forms for county agents and other material; 29,000 copies of Agriculture and Industry and 122,153 copies of bulletins sent in answer

to individual requests. These together with the application blanks for the "Live-At-Home" campaign and the rules for poisoning used in the rat campaign make a grand total of 1,790,775 pieces of mail sent from this Division during the period given.

A feature of the service work to the other divisions has been the printing of letterhead stationery on blank paper furnished by these divisions. Records for the year show that 680,064 letter heads were multigraphed by this office during the year.

PUBLICATIONS ISSUED

During the fiscal year from July 1, 1922 until June 30, 1923 seven extension circulars with a total issue of 54,000 copies have been edited and printed by this division. These are as follows:

Extension Circular	132—Colony Hog House	5,000
" "	133—Feeding Hogs	5,000
" "	134—Feeding Beef Cattle	5,000
" "	135—Dusting Cabbage and Collards to Control Worms	4,000
" "	136—Growing Red Clover	5,000
" "	123 (Reprint)—The Farm Garden	5,000
" "	124 (Reprint)—Farming Under Boll Weevil Conditions	25,000

In addition to these Extension Circulars, 84,000 Extension Folders have been edited and printed by this division during the year. These are as follows:

Extension Folder	6—Growing Apples in North Carolina	5,000
" "	7—Pastures and Fencing	5,000
" "	8—Tobacco Plant Beds	3,000
" "	9—Growing Quality Tobacco	4,000
" "	10—Proceedings of Annual Conference of Extension Workers	1,000
" "	11—Gardening Essentials	20,000
" "	12—Feeding the Club Pig	5,000
" "	3 (Reprint)—Milk for the Whole Family	40,000
" "	4 (Reprint)—List of Available Publications	1,000

Three extension posters comprising a total issue of 8,000 copies were prepared, printed and distributed. These are:

Extension poster	22—Fence for Livestock	2,000
" "	23—Join the War on Rats	3,000
" "	24—Plant a Garden	3,000

In addition to these the Eighth Annual Report of the Extension Service was edited and printed in an edition of 1,000 copies. Most of these copies were distributed by the division.

During the year, the *Tar Heel Club News* was discontinued and *Extension Farm News* was made the sole paper going out as the house or-

gan of the Extension Service. It was decided to give prominent space to club matters and to send copies of the paper to club members and leaders over the State. At the present time therefore about 15,500 copies of *Farm News* are being mailed out each month. During the year a total of 141,500 copies have been printed and mailed. By using a number of illustrations and by making the articles timely and interesting, there has been a great demand for the publication during the year. Each day sees requests coming in for additional copies and requests being made for adding names to the mailing list.

Twelve monthly bulletins, one Biennial Report, one poster and one Entomological Circular have been prepared for printing for the State Department of Agriculture during the year. These were of a total issue of 45,500 copies and were largely distributed by this division. A total of 52,340 bulletins were mailed for the Department in answer to requests made during the year.

Three general bulletins and two technical bulletins have been prepared and issued for the Agricultural Experiment Station. A total of 17,500 copies were printed and about 6,000 were distributed on request.

HANDLING SUPPLIES

As in the past, the Division has endeavored to give the county agents and field workers efficient service in handling their supplies. Letters sent in to us for mimeographing have been mailed back to these workers the next day and all requests of envelopes, paper or other supplies handled by this Division have been forwarded promptly. My Assistant, Mr. A. O. Alford, has had charge of this feature of the work in addition to handling the printing and distribution of bulletins and he has given efficient service as letters from our field workers testify.

SPECIAL WORK

In special activities, workers from this division have aided the home demonstration and dairy specialists in putting on a special milk campaign in Mecklenburg that was characterized as one of the best movements stimulated by the Extension Service this year. A home beautification campaign in the same county was also taken part in by the Division and good results secured in encouraging farmers to paint up and beautify their homesteads. One week was devoted to taking pictures in five Piedmont counties to show by means of photographs some of the varied activities of the county agents. The Division also handles photographic work of the district agents and keeps a file of the pictures sent in. As in the past, the Division has been represented at the midwinter meeting of the North Carolina Press Association and the regular summer meeting. The annual meeting of the American Associa-

tion of Agricultural College Editors held at New Brunswick, N. J., was attended in June and a talk made before this association. A number of short trips have been made over the State during the year to get first hand information about some phase of work being conducted by the experiment station and extension service workers and the information secured has been used in the several ways.

Workers of the Division have been gratified at the number of letters received this year commending some piece of work done or expressing interest in some of the articles appearing in the papers of the State. It is felt that this has been a year of real accomplishment for the good of the entire organization and it has been made possible by the excellent coöperation given the division by the other workers and by the spirit of loyalty and service within this division.

Respectfully submitted,

F. H. JETER,
Agricultural Editor.

FINANCIAL REPORT

The North Carolina Agricultural Extension Service in account with the United States Appropriations under Smith-Lever Act, 1922-1923.

	Smith-Lever Funds	
	Federal	State
Dr.		
To receipts from the Treasurer of the United States and from State sources as per appropriations for fiscal year ended June 30, 1923, under Act of Congress approved May 8, 1914 (Smith-Lever Act)	$227,356.06	$217,356.06
Cr.		
By salaries	$166,260.92	$189,486.08
Supplies and materials	4,542.47	2,116.07
Telegraph, telephone and postage	1,430.86	981.90
Freight and express	281.87	344.82
Traveling expenses	49,461.91	22,991.67
Printing, binding and distribution of publications	4,002.83	
Equipment	1,316.26	1,325.78
Miscellaneous	58.94	109.74
Total	$227,356.06	$ 217,356.06

We, the undersigned auditors of the corporation, do hereby certify that we have examined the books and accounts of the Extension Division for the fiscal year ended June 30, 1923; that we have found the same well kept and properly classified; that the receipts from the Treasurer of the United States were $227,356.06, under the Act of Congress, of May 8, 1914, and the corresponding disbursement $227,356.06, leaving a balance of nothing; that there has been expended as an offset to the Federal Smith-Lever funds $217,356.06 State funds, for all, of which proper vouchers are on file and have been by us examined and found correct.

And we further certify that the expenditures have been solely for the purpose set forth in the act of Congress, approved May 8, 1914, and in accordance with the terms of said act.

(*Signed*) T. C. Birmingham Company,
By T. C. Birmingham, C. P. A.
Auditors.

(Seal)

Attest: A. F. Bowen, *Custodian.*

Examined and approved as correct.

B. W. Kilgore,
Director of Extension.

B. R. Lacy,
State Treasurer.

SUMMARY STATEMENT OF EXPENDITURES BY PROJECTS SHOWING CLASSIFICATION OF EXPENDITURES FROM ALL FUNDS, EXCEPT THOSE FROM THE DEPARTMENT OF AGRICULTURE, USED FOR EXTENSION WORK

	Total	Administration	Publications	County Agents Work	Home Demonstration	Animal Industry
Salaries	$431,039.41	$ 21,003.52	$ 4,160.76	$253,064.58	$ 93,014.24	$ 21,131.51
Labor	1,168.71	60.00	27.50	548.96	190.70	226.25
Printing, binding and distribution of publications	4,002.83		4,002.83			
Stationery, supplies and material	6,658.54	1,070.33	267.38	3,210.96	934.46	309.35
Telegraph, telephone and postage	2,412.76	761.93	67.18	586.41	530.49	194.77
Freight and express	626.69	50.07	146.52	151.92	41.61	173.74
Library	293.13	12.07		1.00	7.51	46.26
Tools, machinery and appliances	465.83	113.60	35	6.50	6.10	85.97
Furniture and fixtures	1,655.23	628.42		426.91	51.67	248.68
Scientific equipment	227.85	10.00				145.00
Miscellaneous	168.68			141.94	26.74	
Traveling expenses	72,453.58	688.91		46,663.47	6,783.69	8,836.54
Totals	$521,173.24	$ 24,398.85	$ 8,672.52	$304,802.65	$101,587.21	$ 31,398.07

	Horticulture	Plant Diseases	Rat Campaign	Agronomy	Farm Engineering	Drainage
Salaries	$ 7,838.33	$ 3,110.00	$	$12,045.74	$ 3,809.96	$ 585.00
Labor		14.25		85.05		
Printing, binding and distribution of publications						
Stationery, supplies and material	94.97	20.89		629.65	76.90	2.20
Telegraph, telephone and postage	7.00	.70		201.96	51.40	
Freight and express		15.43		43.00	4.40	
Library				226.29		
Tools, machinery and appliances	2.75	112.55		136.76	1.25	
Furniture and fixtures	35.50			237.05	27.00	
Scientific equipment		2.75		70.10		
Miscellaneous						
Traveling expenses	1,977.08	462.58	85.70	2,710.24	737.80	106.66
Totals	$ 9,955.63	$ 3,739.15	$ 85.70	$16,385.84	$ 4,708.71	$ 693.86

	Fairs and Exhibits	Farm Forestry	Markets	Bee Extension	Entomology
Salaries	$ 600.00	$ 1,567.10	$ 3,758.77	$ 1,000.00	$ 4,349.90
Labor	16.00				
Printing, binding and distribution of publications					
Stationery, supplies and material			1.10		40.35
Telegraph, telephone and postage			3.42		7.50
Freight and express					
Library					
Tools, machinery and appliances					
Furniture and fixtures					
Scientific equipment					
Miscellaneous					
Traveling expenses		245.72	681.17	887.88	1,586.14
Totals	$ 616.00	$ 1,812.82	$ 4,444.46	$ 1,887.88	$ 5,983.89